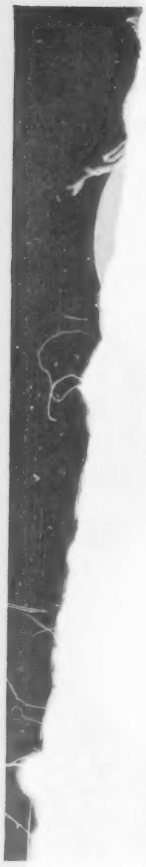
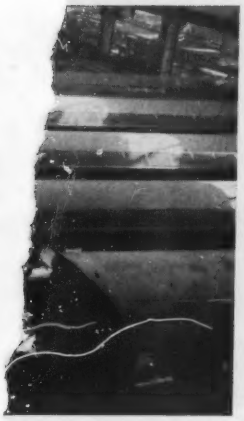


A quick look at what 1 pint of Nalco *Treatment does to 1,000 gallons of Diesel Fuel Oil*

Nalco®

ife, Less Deadweight
oston Subway Cars



Company built these cars
ston's Metropolitan Transit
ayari R high-strength steel.

Of the very latest design, these cars will put less deadweight on the rails, and cut down operating and maintenance costs for the owners. A contributory factor was the use of Mayari R high-strength, low-alloy steel for the roof sheets.

Sheets of Mayari R have a yield point 50 pct greater than that of structural carbon steel. This permits the use of relatively light-gage material to meet a given strength requirement.

In addition to extra strength, Mayari R sheets provide 5 to 6 times greater resistance to atmospheric corrosion, and hold paint up to 80 pct longer than carbon steel. This combination of qualities makes Mayari R ideal for cars and other railway applications. Our nearest district sales office will be glad to furnish additional details.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

h-Strength, Corrosion-Resisting Steel

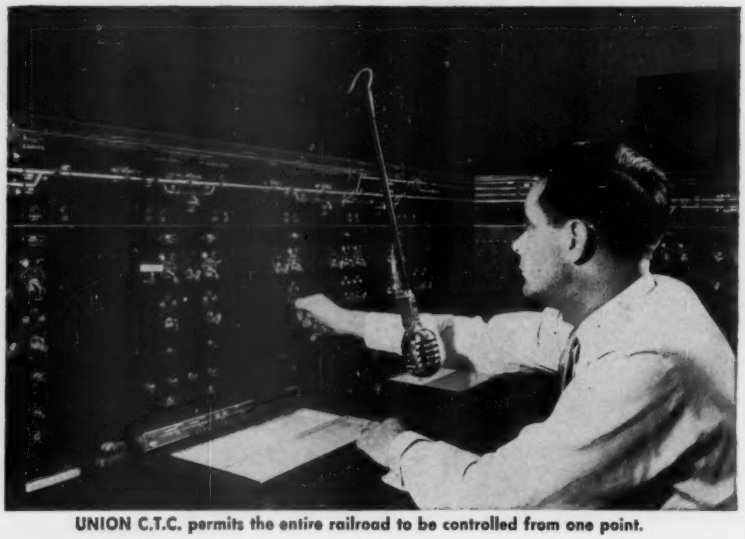
BETHLEHEM STEEL

B. & L. E. eliminates one main track with UNION C.T.C.

The Bessemer & Lake Erie Railroad has installed a modern UNION C.T.C. System on its main line between Albion, Pa., and North Bessemer, Pa., a distance of 125 miles. Traffic control for the entire railroad is centralized at one point, Greenville, Pa.

With this new C.T.C. system, one track can handle all the traffic formerly handled by two tracks, plus anticipated traffic for years to come. Approximately 84 miles of second main track and 18 miles of side track were retired.

SAVINGS WILL BE LARGE. Surveys made by UNION traffic control engineers and the railroad indicate that the net cash outlay for the entire C.T.C. installation and track changes will be recovered through savings in a few years. The railroad officials are enthusiastic about the greater flexibility of operation and the over-all reduction in costs. Let us give you the complete story.



UNION C.T.C. permits the entire railroad to be controlled from one point.

Quality First . . . TO LAST

UNION SWITCH & SIGNAL
DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY
SWISSVALE, PENNSYLVANIA
NEW YORK . . . . . PITTSBURGH . . . . . CHICAGO . . . . . SAN FRANCISCO

AGE *weekly* October 14, 1957 • Vol. 143, No. 16

at a Glance

Departments

Current Questions	31
Freight Car Loadings	47
Letters from Readers	42
New Equipment	47
People in the News	50
Railroading After Hours	44
Railway Market	47
Supply Trade	48
The Action Page	54
Watching Washington	10

Editorial and Executive Offices

• **New York 7, 30 Church St.**

JAMES G. LYNE, Editor
ROBERT G. LEWIS, Publisher

Executive Editor ..... Joe W. Kizzia
Managing Editor ..... C. B. Tavenner
News & Financial Editor .. Fred C. Miles
Traffic-Transportation ... G. C. Hudson
Mechanical ..... H. C. Wilcox
F. N. Houser, Jr.
Electrical ..... A. G. Oehler
Signaling & Communications
John H. Dunn Robert W. McKnight
Regional News ..... Robert B. Keane
Associate Editor ..... R. H. Craib
Presentation ..... Franklin Ryan
Librarian ..... Edith C. Stone
Editorial Assistants
Ann Ortlinghaus June Meyer
Art Director ..... Russell F. Rypsam

• **Chicago 3, 79 West Monroe St.**

Editor Emeritus ..... Samuel O. Dunn
Western Editor .... Wallace W. Abbey
Traffic-Transportation .. T. H. Desnoyers
Mechanical ..... Norman E. Gillespie
Engineering ..... M. H. Dick
R. E. Dove R. M. Schmid
Regional News ..... Augustus D. Welty
Editorial Assistant ..... Wanda Brown

• **Washington 4, National Press Bldg.**

Washington Editor ..... Walter J. Taft

Railway Age, established in 1856, is indexed by the Industrial Arts Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.

Published weekly by the Simmons-Boardman Publishing Corporation at Orange, Conn., and entered as second class matter at Orange, Conn. James G. Lyne, president, Arthur J. McGinnis, executive vice-president and treasurer, F. A. Clark, vice-president and secretary.

Give the 'Symes Plan' further consideration ..... p. 9

That's what ICC Commissioner Tuggle told the Shipper Advisory Boards last week, questioning the charge the plan would be a precursor to nationalization. An adequate freight car fleet is vital to the industry and the nation, he contends.

Baker sees U.S. in transport to stay p.13

With the government deeply involved in such projects as the highway program and the St. Lawrence Seaway, the TAA president says, federal administrative, regulatory and promotional transport activities must be expected to continue.

Fast rebridging in fast water p.20

Here's the story, in text and photographs, of how the Santa Fe got trains moving over a new bridge just 25 days after a derailment knocked out a 200-foot span over the Washita river. A key step in the project was use of steel pipe templates to facilitate rock drilling in the deep, fast moving water.

How are they doing—on the Rio Grande? p.26

With 1957 probably a better year than record-smashing 1956, the D&RGW is out to boost its passenger business with selected fare cuts. It's a reflection of the road's efforts to get revenue wherever it can and to act independently where prevailing industry sentiment doesn't apply in the Rockies.

King-Size 'vacuum' cleans cars fast p.27

Taking a tip from tidy homemakers, the Canadian National is using a truck-mounted suction machine to give customers spotless cars and reduce maintenance time.

'Head Hunting' is a prime railroad target p.34

In the approaching electronics-automation age, George Daffern believes, the ability to think will be needed as never before. There's more to true progress, he suggests, than mere technological advances.

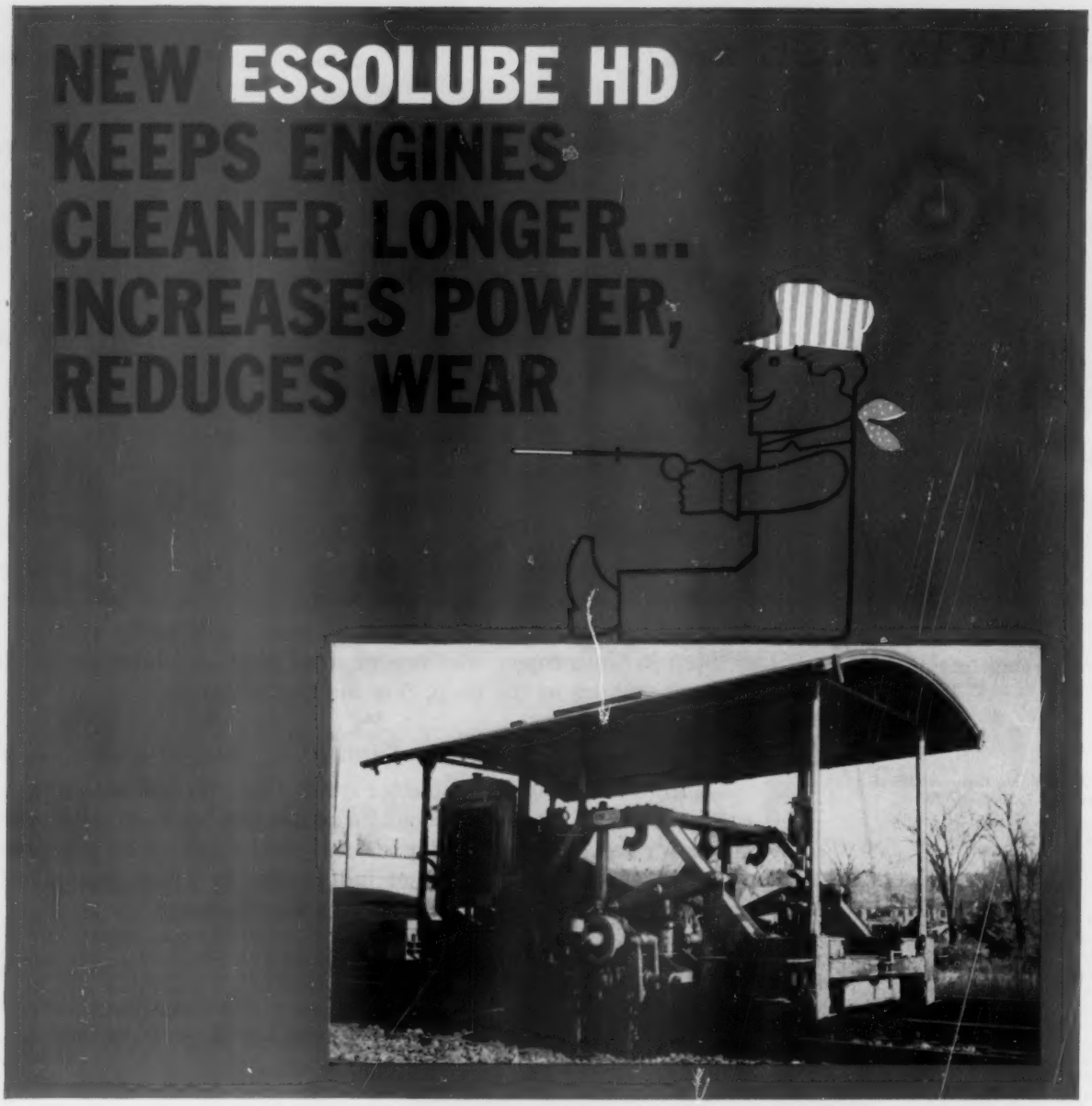
Here's what readers say about the 'Outrage' issue p.42

"Excellent approach;" "A masterpiece;" "Most effectively handled;" "Forceful contribution;" "Widespread benefit;" "Most striking—but . . ." Those are some of the comments from railroad men who read last week's "Special Report to Congress" and were moved to tell us what they thought.

The Action Page—Better find out the costs p.54

One of the most acute needs railroads have is detailed cost data railroad men will have faith in. An example of such information

NEW ESSOLUBE HD KEEPS ENGINES CLEANER LONGER... INCREASES POWER, REDUCES WEAR



New Essolube HD is a superior lubricating oil developed for gasoline and diesel engines of the types used in maintenance-of-way equipment. New Essolube HD contains one of the most effective detergent inhibitor additives ever used. It offers new low-temperature detergency *and* improved high-temperature detergency, plus improved oxidation stability and bearing corrosion resistance.

In extensive laboratory and field tests prior to its introduction, new Essolube HD *proved* its superior detergency properties. Under low-temperature conditions, Essolube HD markedly reduced sludge deposits. Under high-temperature conditions, piston varnish and top ring deposits were reduced to a new low. Such outstanding engine cleanliness results in *greater engine power, reduced wear, longer life.*

NEW ESSOLUBE HD is a versatile oil. You will save on inventory and handling by using it in all your maintenance-of-way equipment – both diesel and gasoline. But most important...there's no danger of using the *wrong* lubricant by mistake.

If you would like more specifics on new Essolube HD, call your local Esso office or write to Esso Standard Oil Company, Railroad Sales Div., 15 West 51st St., New York 19, N. Y.

ESSO

RAILROAD PRODUCTS

Week at a Glance CONT.

Current Statistics

Operating revenues, eight months	
1957	$7,036,382,711
1956	6,950,408,794
Operating expenses, eight months	
1957	$5,507,215,070
1956	5,370,373,130
Taxes, eight months	
1957	$735,814,136
1956	731,061,595
Net railway operating income, eight months	
1957	$615,229,126
1956	677,039,317
Net income estimated, eight months	
1957	$474,000,000
1956	534,000,000
Average price 20 railroad stocks	
October 8, 1957	78.19
October 9, 1956	97.50
Carloadings revenue freight	
Thirty-nine weeks, 1957	27,136,211
Thirty-nine weeks, 1956	28,180,130
Average daily freight car surplus	
Wk. ended Oct. 5, 1957	13,472
Wk. ended Oct. 6, 1956	3,776
Average daily freight car shortage	
Wk. ended Oct. 5, 1957	1,899
Wk. ended Oct. 6, 1956	17,834
Freight cars on order	
September 1, 1957	79,258
September 1, 1956	122,870
Freight cars delivered	
Eight months, 1957	67,894
Eight months, 1956	43,897

•

Advertising Sales Department

Duane C. Salisbury—vice-president, director of sales

New York 7, N. Y., 30 Church st., WOrth 4-3060
J. S. Vreeland—vice-president; F. T. Baker—district manager; W. E. Glasby; J. C. Lyddy
Chicago 3, Ill., 79 W. Monroe st., RAndolph 6-0794
J. R. Thompson—vice-president; J. W. Crossett—district manager; J. D. Dolan—district manager; W. J. Gatenby
Cleveland 13, Ohio, Terminal Tower, MAin 1-4455
H. H. Melville—vice-president; C. J. Fisher; H. M. Blunt
Philadelphia, Pa. (Jericho Manor, Jenkintown, Pa. TUrner 7-4526)
W. E. Glasby—district manager
Pittsburgh 19, Pa., 530 Sixth ave., GRant 1-8186
C. J. Fisher—district manager
Atlanta 9, Ga., 22 Eighth st., N. E., TRinity 2-6720
J. S. Crane
Dallas 19, Tex., 3908 Lemmon ave., LAkeside 2322
Joseph Sanders
Los Angeles 17, Cal., 1151 W. Sixth st.
MAdison 6-0553
Fred Klaner, Jr.; B. J. Erickson
Portland 5, Ore., 1220 S.W. Morrison, CApitol 7-4993
L. B. Conaway
San Francisco 4, Cal., 244 California st.
GArfield 1-7004
Lewis Vogler
London E. C., 1 Eng., 8/9 Clerkenwell Green
Sibley-Field Publishing Co., Ltd.
Frankfort am Main (16), West Germany
Wittelsbacher Allee 60
Georg J. Linder, Continental European Representative

•

Subscription to railroad employees only in U.S. possessions, Canada and Mexico, $4 one year, $6 two years, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year, in other countries, $15 a year. Single copies 50c, except special issues. Concerning subscriptions write R. C. Van Ness, Circulation Director, 30 Church st., New York 7.

was given by John R. Meyer, heading a research group, in testimony during the passenger deficit hearings.

Short and Significant

How to use the 'Outrage' issue . . .

Last week, in a special Report to Congress, Railway Age spotlighted the confining conditions imposed on railroads by unequal legislation and regulation. Now, while Senators and Congressmen are home between sessions, railroad officers at the local level may wish to talk to them about the OUTRAGE—and what these legislators can do to correct it.

37 truckers will get 18 cents each . . .

as winners of their anti-trust suit against 31 eastern railroads, the Eastern Railroads Presidents Conference, and the public relations firm of Carl Byoir & Associates. Nominal damages on that basis were awarded last week in the Federal District Court at Philadelphia by Judge Thomas J. Clary. He deferred his award to the Pennsylvania Motor Truck Association, another party to the trucker complaints, which sought damages of $250 million. The judge dismissed the railroads' countersuit for $120 million. The railroads are expected to appeal the decision.

William E. Hall will retire . . .

at the end of this month from his position of manager of the Information Section in the AAR's Public Relations Department. AAR rules require retirement at 70, and Mr. Hall will reach that age October 15.

ICC 'determined' to enforce safety rules . . .

And the commission is prepared to use "drastic measures" when necessary to accomplish this aim, Commissioner L. K. Walrath told the common carrier conference of the American Trucking Associations. Declarations of good intentions and "fervent promises for future improvement," he told the truckers, are not "sufficient answer to continued safety deficiency."

Truck freight rates also rising . . .

Rate increases ranging from 5% to 7% on class rates, and from 4% to 7% on commodity rates, have been decided upon—definitely, in some cases, and tentatively in others—by some nine truck rate associations. Indications are that truckers are carefully eyeing railroad action on hold-downs set after the last rail rate increase.

Super-ships for coal . . .

will be available most of the year for the Hampton Roads, Va.-to-Europe export movement if plans go through to build several 70,000-ton capacity vessels to haul iron ore from northern Labrador to Germany. Ungava Bay ore-loading docks would be iced in eight months out of twelve.

How Southern Pacific speeds operations and tightens controls

WITH P-A-X BUSINESS TELEPHONES

A newly installed P-A-X automatic telephone system helps expedite freight movements in the Englewood Gravity Switching Yards at Houston, Texas.

Incoming trains now save precious time by rolling past checkers faster than previously possible. When a train approaches, a yard clerk simply speaks into a P-A-X telephone, reading the initials and numbers of each car. Recording equipment connected to the phones automatically records this information on tape for playback later on.

The P-A-X system is a valuable aid to the Yardmaster, in supervising yard personnel from the bowl tower shown above. Other workers use P-A-X for instant person-to-person contact 'round-the-clock.

In addition to speeding operations and providing tight control, P-A-X is economical to use. The dial-operated system is entirely automatic and requires no operators.

Scores of leading railroads across America testify that P-A-X speeds freight movements and improves controls. Get solid proof from your Automatic Electric representative, or *write:* Automatic Electric Sales Corporation, Northlake, Illinois. *In Canada:* Automatic Electric Sales (Canada) Ltd., Toronto. *Offices in principal cities.*

P-A-X *business telephone systems*

AUTOMATIC ELECTRIC

A member of the General Telephone System - One of America's great communications systems

GENERAL TELEPHONE SYSTEM

RAILWAY AGE
The Industry's Newsweekly

COMMISSIONER TUGGLE ADVISES:

Give Symes Plan Consideration

"In these days of soaring passenger train deficits, the success of railroad operations depends more than ever upon the efficient use of freight car equipment," Commissioner Kenneth H. Tuggle of the Interstate Commerce Commission said in an address prepared for delivery at the 21st annual meeting of the National Association of Shippers Advisory Boards in Chicago, October 10.

The commissioner had this to say about government financing of railroad equipment [Symes plan]: "This proposal unquestionably will be assailed on the ground, among others, that it would be a move toward ultimate government ownership and operation of the railroads. No one in his right mind would want that. In this connection it might be observed that, historically, there are few important industries in our land that have not received material aid from the government, such as monetary loans in time of need, rapid amortization programs, and other favorable considerations in our tax laws. I think it may truthfully be said that this has supported and strengthened—not weakened—our free enterprise system. I think you will agree that these bills [before Congress] merit careful and thoughtful consideration," he continued.

"An adequate supply of freight cars," the commissioner said, "is just as essential to the railroads as are adequate machine tools to the production industry."

Production and transport lines are so inter-related, and so dependent on each other, he said, that a deficiency or slow down in either transportation or production inevitably reacts to the serious disadvantage of both industries. This results in a damaging effect to the public and to the economic strength of the United States and to world peace, he continued.

Car service is one area of railroading where substantial improvements can and must be made, Commissioner Tuggle pointed out. Improvements are needed in both government regulation and in facilities and service for industry. "This is a 'must' because freight cars, particularly box cars, have not been in sufficient supply to meet commercial demands for many years," he said.

"Viewed from the national defense standpoint, the inadequacy of the present car supply is self-evident," the commissioner continued, "especially since it is more than likely that, in the event of another emergency comparable to the ones of the past a very much greater job would have to be performed by our transportation plant."

He said the two principal causes of the car shortage are inadequate car ownership and poor utilization. "Since the earning value of the average freight car is many times the current per diem charge of $2.75, it is not surprising that some railroads consider it more economical to rent cars than to own them," the commissioner declared. "Under present conditions, therefore, when a railroad can meet its common carrier responsibility with rented equipment, it has no economic incentive to provide its fair share of an adequate car supply," Commissioner Tuggle emphasized.

"Thirty years ago Class I railroads owned and controlled 2,427,026 freight cars. Since then the ownership has dropped to the comparatively low level of 1,774,616 cars on January 1, 1956."

"It is my considered guess that the freight car fleet is now about a hundred thousand cars short," he declared.

"I am not saying that the nation's business cannot be carried with the present car supply, considering other available transport facilities," he added.

"Substantially increased demurrage charges . . . for obvious reasons did not and cannot reach probably the most important delays in car handling and movement, namely, the delays which occur when the car is in the hands of the carrier," the commissioner emphasized. The commission's view is that a penalty per diem charge would furnish a pecuniary spur to deficit railroads to acquire sufficient cars to at least meet their own loading obligations. Mr. Tuggle pointed to the commission-sponsored penalty per diem proposals currently before Congress as a way to "encourage adequate car ownership by each carrier."

"If this proposal is enacted, the commission's first logical step would be to determine the extent to which railroads, individually and collectively, are deficient in car ownership. This of course would necessitate a comprehensive study of traffic requirements, including peak loadings on individual roads. Separate studies would be made for the various types of equipment, such as box, gondola, hopper, flat, refrigerator, stock or other special types of cars. Consideration would also be given to the type and flow of traffic and whether the carrier is predominantly an originating, terminating, or bridge line."

An adequate and efficient car service means something more than increased car supply, the commissioner said. "The railroads need more yard automation, standardized rolling stock, and the further development of special purpose cars—cars carefully adapted to the job they are called upon to do. Excess terminal time, particularly at rail classification yards, unquestionably presents one of the most pressing problems now confronting railroad management."

Underlying all the railroads' problems, AAR Chairman William T. Faricy told the shippers, are the industry's substandard earnings. "The problem is one of costs swollen by inflation and not fully covered by rate increases," he said.

Nevertheless he was able to paint a bright picture for the railroads in which he anticipates "great changes in the physical plant and equipment" as the result of "broader research." These, he said, "will have a profound effect upon the art and practice of railroading."

"I am confident that the next 10 years will see . . . elasticity in the making of rates . . . better through-scheduling of freight service . . . and improved freight car supply."

Average quality and adaptability for special purposes are as much a part of this car supply forecast as total numbers

MORE NEW PLANS AHEAD

In coming weeks, Railway Age will add another new dimension to its already comprehensive coverage of major railroad issues.

This latest step will be publication of the results of a series of Roundtables—conferences at which top management will discuss key problems of the industry. What's the future of the dining car? How good **is** railroad advertising? What's ahead for specialized freight cars? How can we lick the money problem? These are the kinds of topics on which Railway Age plans to expand its coverage of railroad trends and thinking.

Roundtables will be held in railroad centers, bringing together industry specialists who already are seeking answers. Watch for these features. Work on the first one is already under way.

of cars, Mr. Faricy made clear. Car purchasing efforts in the last two years have resulted in a net increase of 50,000 cars, he said.

The railroad problem has been in the past and still is, to find the funds for improvements which will pay for themselves in better and greater economy, Richard G. May, AAR vice-president, said in an address prepared for the meeting.

It is the earnest hope of the railroads, he said, to see the adoption of a public transportation policy which will place all carriers on an equal basis in going after business.

"During 1956 TOFC service was expanded and it is continuing to show further gains in 1957," Mr. May continued. At present there are 40 railroads which originate this traffic. Loadings are currently averaging better than 5,000 cars per week, while 1956 carloadings amounted to an average of 3,996 per week.

The committee on motor transportation is progressing its study on the types of equipment in use and the possibility of standardizing a trailer as well as flat car for this service, he reported.

"Railroads are keenly aware that they can no more stand still than any other business," Mr. May declared. "The process of invention and applied research is being pressed . . . to find and adapt . . . the best methods for the production of ever better transportation service."

The association will hold its next meeting October 7-8-9, 1958, at the Hotel Penn-Sheraton in Pittsburgh, Pa.

The new president of the association is Ralph E. Covey, traffic manager, American Sugar Refining Co., who succeeds T. C. Burwell, vice-president traffic, A. E. Staley Manufacturing Co. Mr. Burwell is retiring from Staley November 30.

Vice-presidents are Lewis A. Schwartz, general manager, New Orleans Traffic & Transportation Bureau, and Wilton C. Cole, general traffic manager, Georgia-Pacific Corp.

Watching Washington *with Walter Taft*

• **THE "SHALL-NOTS"** rate-freedom proposal is still a prime objective of the railroads' legislative program. That's the position of AAR officers who also say they are aware of contrary reports to the effect that this controversial legislation will not be pushed in the next session of Congress. The "shall-nots" would amend the Interstate Commerce Act's rate-making rule to preclude ICC consideration of the effect of proposed rates on competing modes of transport.

• **"DEAD AS A DODO"** is what President James M. Hood of the American Short Line Railroad Association says of the "shall-nots" proposal's present state. As he puts it, "nobody wanted them except the railroads and not all of them." ASLRA is among the supporters.

• **A COMPLAINT OF THE ICC'S SAFETY CHIEF,** H. R. Longhurst, is that some railroads, "as a matter of policy," leave recording tapes out of speed recorders on locomotives. The head of the commission's Section of Railroad Safety says this has been brought out in many accident investigations. He is concerned that it might be interpreted by enginemen as a "tacit invitation" to disregard speed and other restrictions.

• **FARES OF EASTERN RAILROADS** won't be disturbed by the ICC at this time. The commission has denied petitions of the Army and Railway Labor Executives' Association for reconsideration of its decision of last April, which made permanent the January increase of 5% in coach fares and raised the first-class increase on six roads to 20%. The latter was in lieu of a 45% hike which the six had proposed.

• **RAILROAD EMPLOYMENT OUTLOOK,** as viewed by the Department of Labor, is that "thousands" of new workers will be hired during the next few years while total railroad employment is declining. The new job opportunities are expected to result in large part from deaths and retirements, because railroaders are among the oldest workers in American industry.

• **TURN AT SUBSIDY TROUGH** is now due small communities which have or seek services of so-called local airlines. A member of the Civil Aeronautics Board, Louis J. Hector, has been saying this. He warns, however, that interested communities must be willing to fight if they would stay at the trough or get there—because "competition for the subsidy dollar is keen."

• **NO MORE TOLERANCE IN SAFETY MATTERS** can be expected by truckers from the ICC. This tip has come from Commissioner Walrath who says the motor carrier industry is now fully mature and must be held to be responsible. He warns that the commission is determined to require safety compliance "across the board," and is prepared to use "drastic measures" to achieve that end.

Erie Donates Property To Pennsylvania Town

The Erie has given its passenger station and surrounding land to the borough government at Cambridge Springs, Pa. This is one of the rare instances, said Harry W. Von Willer, Erie president, in which a railroad has given land and a building outright to a municipal government.

A new fire station will be erected on the site by the borough and its volunteer fire department. The Erie has agreed to rent a portion of the new building, under long-term lease, for a modern passenger station.

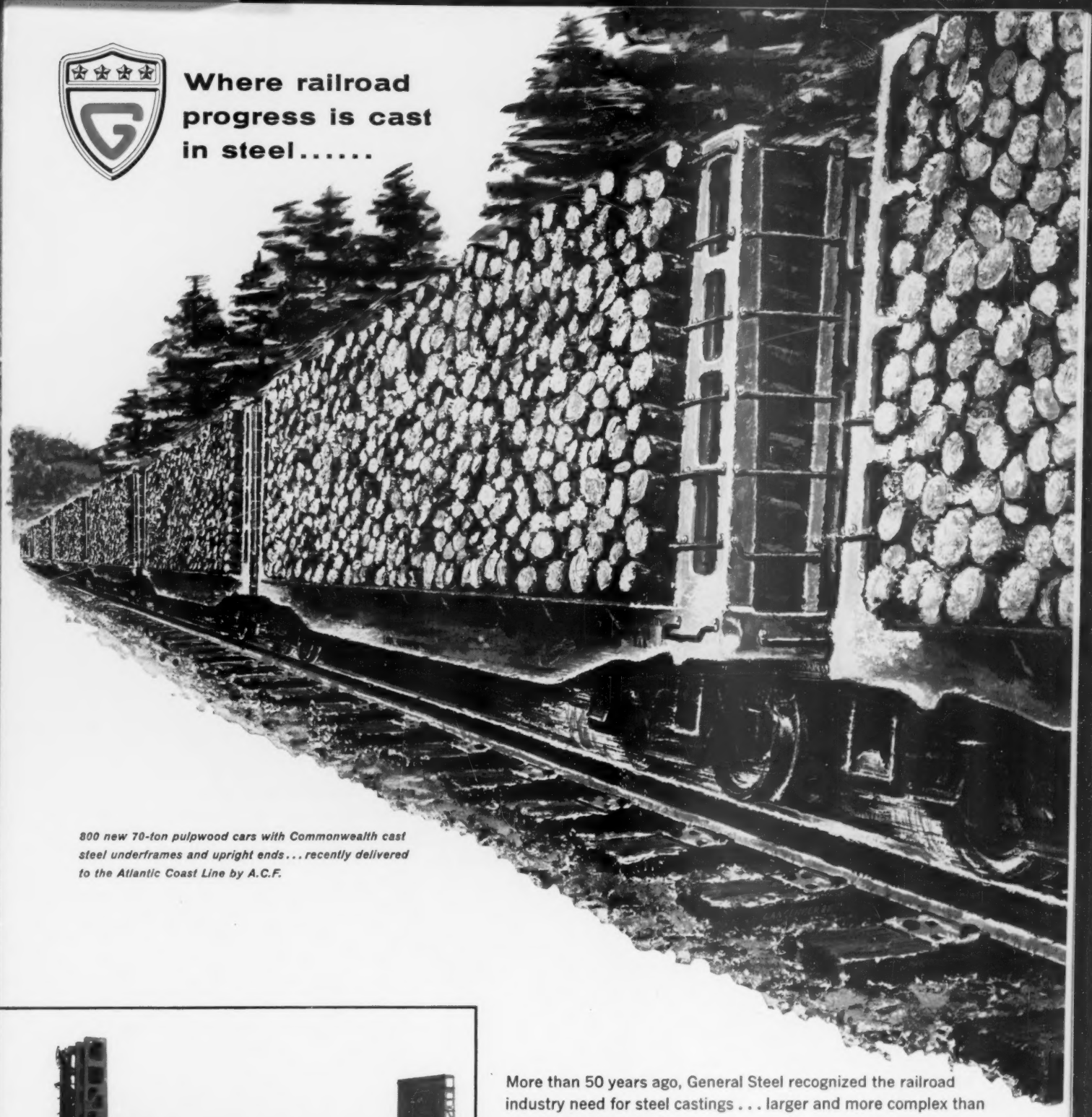
Shoemaker Blasts Analysts On 'Unwarranted Pessimism'

"Cold analysis" of the facts should rule out negative thinking about the railroads' future, Lackawanna President P. M. Shoemaker told the New York Society of Security Analysts October 4.

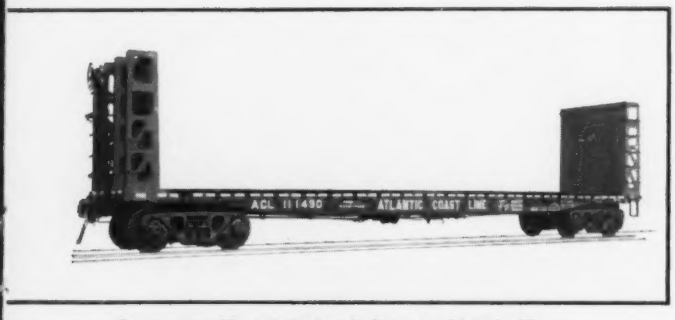
Commenting that he thinks security analysts "are subject to the same pressures and emotions and hysterias that beguile individual members of corporate management," Mr. Shoemaker said that financial reporting recently has been "more pessimistic than the facts warrant."

"Your profession has some responsibility for the uneasiness of investors in railroad securities," he said, adding that analysts have as great a responsibility not to be unduly pessimistic as they have "not to exaggerate on the bullish side. I have the feeling that some financial writers have not been unhappy about emphasizing railroad problems, emphasizing railroad competition and in general presenting a discouraging picture."

Where railroad progress is cast in steel.....



800 new 70-ton pulpwood cars with Commonwealth cast steel underframes and upright ends... recently delivered to the Atlantic Coast Line by A.C.F.



Commonwealth cast steel underframe and interlocking upright ends simplify pulpwood car construction; provide greater strength, permit easier loading, maximum capacity.

More than 50 years ago, General Steel recognized the railroad industry need for steel castings . . . larger and more complex than ever before conceived.

Advanced engineering and production techniques developed through its pioneering have made General Steel a unique supplier to today's railroads. Its Commonwealth one-piece products . . . for freight cars, passenger cars and locomotives . . . utilize cast steel's great strength at minimum weight, exceptional ruggedness and freedom from maintenance to cut operating expenses for users throughout the world.

Plan wisely for the future . . . invest in Commonwealth products.

GENERAL STEEL CASTINGS

GRANITE CITY, ILL. • EDDYSTONE, PA. • AVONMORE, PA.

now comes

Oilgard

TO REPLACE THE CONVENTIONAL INADEQUATE DUST GUARD

it was found after appropriate testing that OILGARD is an ***amazingly effective prevention against the loss of oil*** *from the rear of journal boxes.*

"The inner ring floats with each movement of the axle and thereby eliminates the wear and crushing damage which ordinarily occurs with conventional designs of dust guards."

Holds the free oil in the journal box by establishing a retainer at the dust guard seat on the axle. It consists of a sheet metal frame which houses a plastic ring—an EFFECTIVE fit in the housing and on the axle.

The material used in the ring is not affected by oil or the temperatures involved. Oilgard is based on AAR Drawing No. SK-9855.

Don't fight the axle—fight the oil!

Oilgard's effectiveness is due to the fact that it doesn't resist the axle movement. The ring floats with the axle, but maintains a constant oil-stop contact within the metal frame.

Oilgard

BECK & BLATCHFORD, Inc.

80 East Jackson Boulevard Railway Exchange Building
Chicago 4, Illinois • HArrison 7-6424

GOODYEAR AIRFOAM AND FLOORING • MOHAWK CARPETS • COLLINS & AIKMAN FABRICS • FLINTKOTE PROTECTIVE COATINGS • GARLAND CUSTOM FURNITURE

Copyright—1957, Beck & Blatchford, Inc.

Baker Sees U.S. in Transport to Stay

Planning by both common and contract carriers "must be done within the limits that government regulations permit," TAA president tells Associated Traffic Clubs.

A top authority in transport planning and economics sees little chance for a lessening of the government's role in the development of transportation.

Dr. George P. Baker, president of the Transportation Association of America and professor of transportation, Harvard Graduate School of Business Administration, told the annual meeting of the Associated Traffic Clubs of America in Dallas, Tex., that "government, through its administrative, regulatory and promotional activities . . . has assumed and will continue to assume an important role in the development of transportation in this country. . . . Private transport planning must take into account this wide scope of government activities."

Dr. Baker cited two specifics—the multi-billion dollar federal highway program; and the issue of tolls on the St. Lawrence Seaway. In addition to government promotion activities—and the TAA president reviewed the situation on highways, waterways, airways, airports and even the proposed federal railway equipment agency—government regulation must be taken into account and "planning by common and contract carriers . . . must be done within the limits that government regulations permit."

The outlook for ICC activities, Dr. Baker pointed out, indicates a continuation of the "piecemeal" approach to legislative changes; tighter enforcement of both economic and safety regulations "especially in the motor carrier field"; and possible greater consideration to "cost of service" in rate-making, in contrast to the "value of service" theory.

In the framework of private planning—in the rail field—TAA's president sketched out a list of "watch for" items:

- A continuing trend toward "joint services, both between different modes of carriers and between carriers of the same type." One piggyback forecast, he said, predicts a $1 billion market by 1965, with 50,000 special flat cars moving about five million trailers a year. "The unfortunate attitude of the past," he added, "which made it almost immoral for the representatives of some forms of transport to try to work out constructive through services with representatives of certain other forms, really appears to be crumbling away. This is one of the great constructive forces now at work in the transportation industry."
- Passenger service planning will center on "streamlined service between high-density points and a continuation of efforts to drop unprofitable services. Railroads . . . will become more and more a mode of freight transport."
- Another "expected development . . . is formulation of additional plans to merge two or more carriers to permit better utilization of existing facilities."
- Improvements may take place in transportation pricing—"the railroad rate structure grew up under conditions very different from present ones and that structure was not ill-suited to those times. Well-run businesses in our healthy, modern society, however, know far more about their costs and are far more conscious of the relationship between cost and price, whatever that relationship may be, than is the case in the railroad industry."

(More News on page 16)

RRs On Way to Prime Investment Status

Long before 20 years have passed the railroads will again be prime investments, sound financially, performing an even greater share of the vital work of the nation, and they will be paid an honest wage for the job they do.

How can I say this in the light of the history of the last 20 years during which national policy has forced traffic off the low cost railways onto the high cost highways, waterways and airways? Only because with the two subjects, taxation and inflation, in every person's heart and mind, it is inconceivable that the artificial handicaps which now burden the railroads can continue to be endured. Especially is this so when the cost of transportation is one of the most important items in the cost of living and the railroads' handicaps are the result of out-of-date regulation, unequal taxation and subsidy, destructive competition among themselves, and a hodge-podge socialistic transportation policy which completely ignores the necessities of defense *at home*.

Long before 20 years have passed, the public will have learned the true facts, now so confused and obscured, and will have insisted that our public servants provide them with a transportation policy that makes sense, one that puts all the segments of the transportation industry on a fair and equal footing. Only then can the public get its money's worth—for now our transportation policy is unnecessarily adding billions every year to our cost of living and to our taxes.

All railroads, and the New York Central specifically, will be greatly changed, but their basic character as mass producers of transportation will be vastly intensified. Our rail freight service will be restricted to high density, largely main-line operations. Our passenger speed freight trains, operating on time and at high frequency, will end their runs on the outskirts of the great centers of population which they can serve economically, unimpeded as they now are by urban yard congestion and discriminatory taxation. From there the trucks—probably in the Flexi-Van form which we are introducing this year—will fan out to complete the distribution process, thus putting the truck back where economics justifies it, the short haul.

Our nation's essential passenger service, now senselessly losing three-quarters of a billion dollars a year, will be limited to main-line operations between population centers of high density. It will be treated fairly by the tax collector and the regulator and will pay its own way like any other American business. And while the bulk of the travel will be in intermediate hauls, in light-weight, low-center-of-gravity coach equipment, I am confident that the way can be found to preserve the long-distance trip in luxury first class sleeping equipment without making the user of our freight service pick up the tab as he is now asked to do.—*Robert R. Young, NYC chairman, in a statement made for a 20-year time capsule buried recently beneath the board room of the new E. F. Hutton & Co. office in New York City.*

the new, improved **Adlake** electric lantern

...we invite you to compare it

Railroading itself dictated the improvements which are combined only in this new, lighter weight Adlake Electric Lantern. Think of these benefits in terms of the men who use lanterns:

- **Extruded aluminum bail, heat treated, with heavy coat of neoprene—a firm grip, resists oil, has ample arm clearance.**
- **Bail stays in position, but moves readily on new rivet attachment—tested for 15,000 operations without losing original tension.**
- **Stainless steel reflector—stays bright.**
- **At a flip of the switch, the lantern throws either a strong signal or a brilliant spot for reading car numbers.**
- **Holder in the cap for two spare bulbs.**

We invite you to make your own comparison, and when you have tried this lantern we believe you'll agree that it is the finest available. There's no obligation... write The Adams & Westlake Company, 1150 Michigan, Elkhart, Indiana.

DAY AND NIGHT

They're building a new railway age

...Each new week brings progress

Your railroads are barreling along on a billion-dollar modernization program—and there's a clear track ahead.

What accounts for the new hum along the rails today? The whole host of modern innovations—coast-to-coast piggy-back service—electronic car reporting—automated track maintenance? That's only part of it. RR management have their eyes on the future as never before. They're shooting as never before for the lion's share of the nation's freight and passenger traffic. They're purchasing for progress as never before. No wonder the railroads jacked up expenditures for new improvements 22% over 1956.

Here's where you come in—and you'll come in with a rush in the freshly edited, fast-reading pages of RAILWAY AGE. Because nowhere else can the roads' top decision makers—on the prowl for new product ideas—get so much vital information—so succinctly—so fast. What other magazine is tuned so finely to the pulse of a new railway age? Want more pulling power in your railroad ads? Your answer's here . . . in RAILWAY AGE.

Gear into the weekly pace in **RAILWAY AGE** *weekly*

A SIMMONS-BOARDMAN **TIME-SAVER** PUBLICATION • 30 Church Street, New York 7, N. Y.

Outlay Estimates Still on Upgrade

Class I roads anticipate that this year's gross capital expenditures will be more than 15% higher than the total bill for such outlays last year.

The ICC's Bureau of Transport Economics and Statistics reports that estimates from 106 carriers for capital outlays in the last half year indicate the 1957 total will be $1,423.5 million. Previous estimates furnished by railroads for the bureau brought the year's gross outlays to about $1,407.2 million.

Last year's total for 111 reporting roads was $1,230.9 million. Actual capital expenditures so far this year come to $701.8 million for the 111 reporting roads. Actual and estimated figures are compared in the accompanying table from the bureau.

Period	Roads	Road Thousands	Equipment Thousands	Total Thousands
Actual 1956:				
1st half	111	$170,628	$451,277	$621,905
2nd half	111	235,671	373,186	609,057
Year	111	406,499	824,463	1,230,962
Actual 1957:				
1st half	111	173,963	527,869	701,832
Estimated 1957:				
3rd quarter	1106	123,499	268 500	391,999
4th quarter	1106	108,649	221,067	329,716
2nd half	1106	232,148	489,567	721,715
Total: 1957 actual and estimated	..	406,111	1,017,436	1,423,547
Percent of change: 1st half 1957 vs. 1st half 1956	..	+2.0	+17.0	+12.9
2nd half 1957 (Est.) vs. 2nd half 1956	..	−1.6	+31.2	+18.5
Year 1957 (actual and estimated) vs. 1956	..	−0.1	+23.4	+15.6

[1] Estimate not furnished for five roads.

Harriman Safety Winners Named

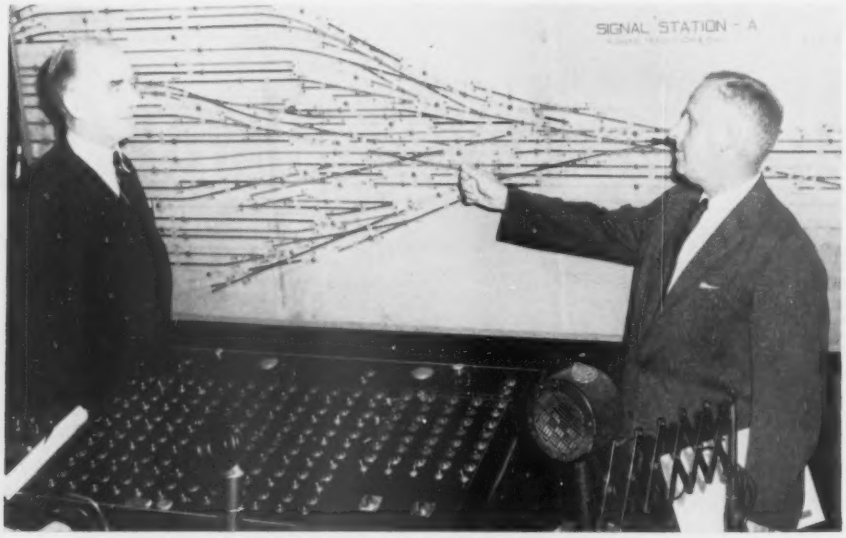
The E. H. Harriman Memorial Awards for outstanding 1956 safety records will be presented this week to 12 railroads, two switching and terminal companies and the Pullman Company.

Gold medals, for the best records in their respective classifications, will be given to the Union Pacific, the Chicago & Eastern Illinois and the Bangor & Aroostook.

Certificates of commendation will be awarded to the Erie; Louisville & Nashville; Great Northern; Elgin, Joliet & Eastern; Virginian; Duluth, Missabe & Iron Range; Litchfield & Madison; Atlanta & West Point (including the Georgia and the Western of Alabama); Lake Superior & Ishpeming; Baltimore & Ohio; Baltimore & Ohio Chicago Terminal; Alton & Southern; and Pullman.

The medals and certificates are awarded each year by the American Museum of Safety, through its Harriman Memorial Awards Committee. Chairman of the committee is James G. Lyne, editor of Railway Age, and its secretary is Paul F. Stricker, manager director of the museum. Other committee members are Owen F. Clarke, chairman, Interstate Commerce Commission; Harold F. Hammond, executive vice-president, Transportation Association of America; Robert S. Henry, vice-president, Association of American Railroads; David I. Mackie, chairman, and John M. Fitzgerald, former vice-chairman, Eastern Railroad Presidents Conference; and E. Grosvenor Plowman, vice-president—general traffic manager, U.S. Steel Corporation.

Recipients of the awards are determined by the committee on the basis of official safety records compiled by the ICC. The awards will be presented by Mr. Lyne at an October 16 dinner in the Hotel Roosevelt, New York City. Cyril Ainsworth, museum president, will preside over the dinner.



British Transport Chief Studies U.S. Developments

General Sir Brian Robertson (left), chairman of the British Transport Commission, inspects the interlocking control panel for Grand Central Terminal with Alfred E. Perlman, president of the New York Central. Sir Brian, and four colleagues, recently began a month's tour of the U.S. and Canada. The delegation is interested chiefly in U.S. developments in the organization of modern railroad systems, diesel locomotives, signaling, road-rail freight transfer, and CTC.

Contract Truckers Lost Tonnage in 2nd Quarter

Volume of intercity freight transported by truck in the second quarter of 1957 was down 1.7% from the tonnage hauled in the same period in 1956.

Based on a survey by the American Trucking Associations of 2,312 truckers, the slip is attributable to a sharp decline in contract carrier transportation. ATA said that the volume moving in contract carriage was down 11.8% from the second quarter 1956, compared with a slight increase (less than a tenth of one per cent) in common carrier truck transport in a like comparison.

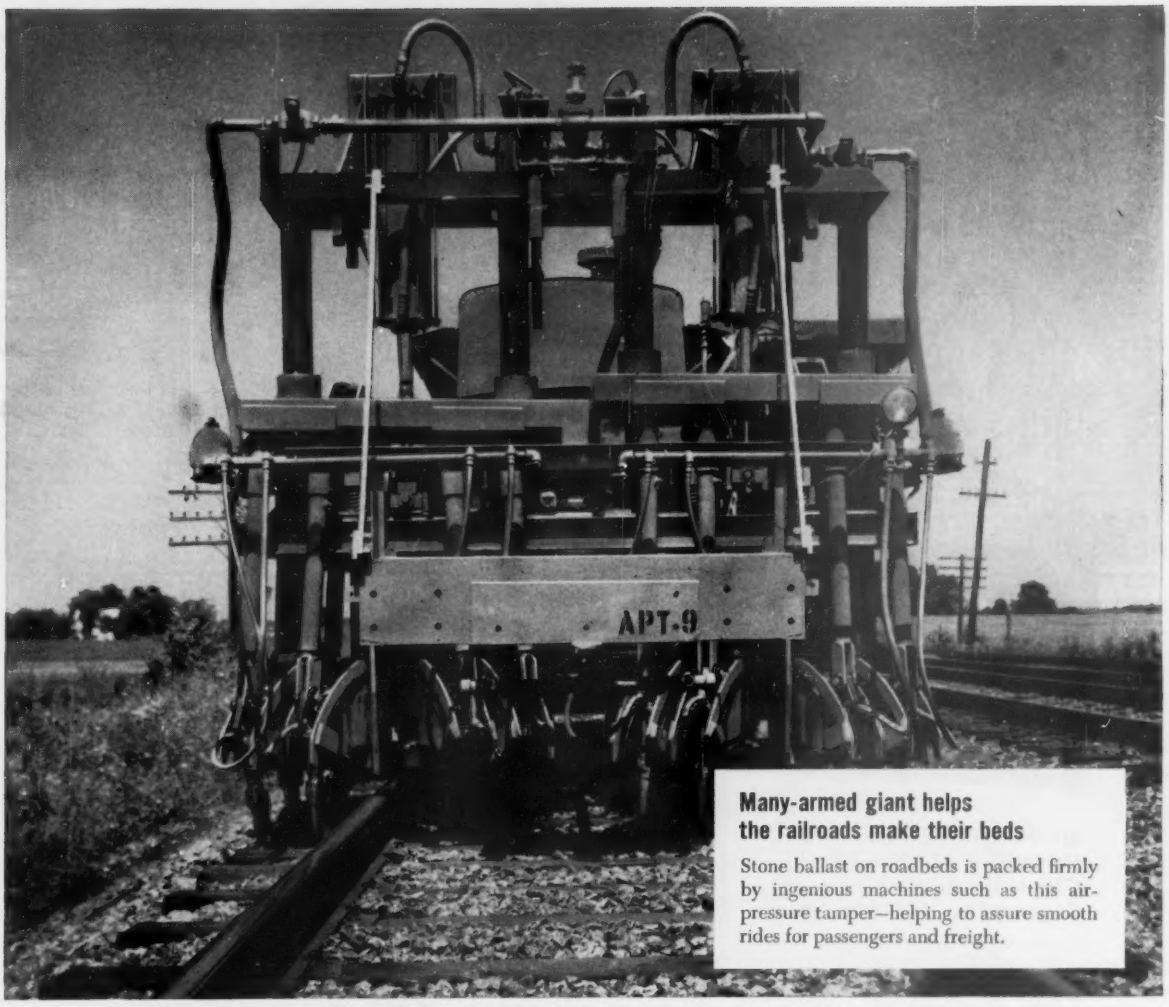
Canada Moves Toward Equal 'Commodity' Rates

A major step toward equalizing "commodity" rates, which move about one-half of Canada's $1-billion-a-year rail traffic, has been taken by the Board of Transport Commissioners at Ottawa.

In the latest phase of the equalization task that began in 1948, the board has directed that commodity rates on a variety of products are to be levelled off as between eastern and western Canada by next January 1. This is the first order on these rates.

Commodity rates generally apply to specific goods moving in volume. In 1954 the board ordered equalization of class (ceiling) rates. Because of the Maritime Freight Rates Act of 1927, the commodity equalization does not apply to the Atlantic

(Continued on page 44)



Many-armed giant helps the railroads make their beds

Stone ballast on roadbeds is packed firmly by ingenious machines such as this air-pressure tamper—helping to assure smooth rides for passengers and freight.

More Railroad Progress like this depends on adequate earnings

Isn't this common sense?

America's railroads have spent more than twelve billion dollars since World War II to improve their service — with new equipment, better roadway, new operating techniques.

These improvements are as important to America as to the railroads themselves. And the self-sustaining railroads are ready to make many more — as fast as they can earn the money to pay for them.

That's the hitch. Railroads just aren't earning enough money these days to put into operation all the improvements they have developed. Railroads *could* make enough money to do more of these things, for they are — by far — our most efficient system of mass transportation. But their earning power is hamstrung by outdated public policies that favor competing forms of transportation.

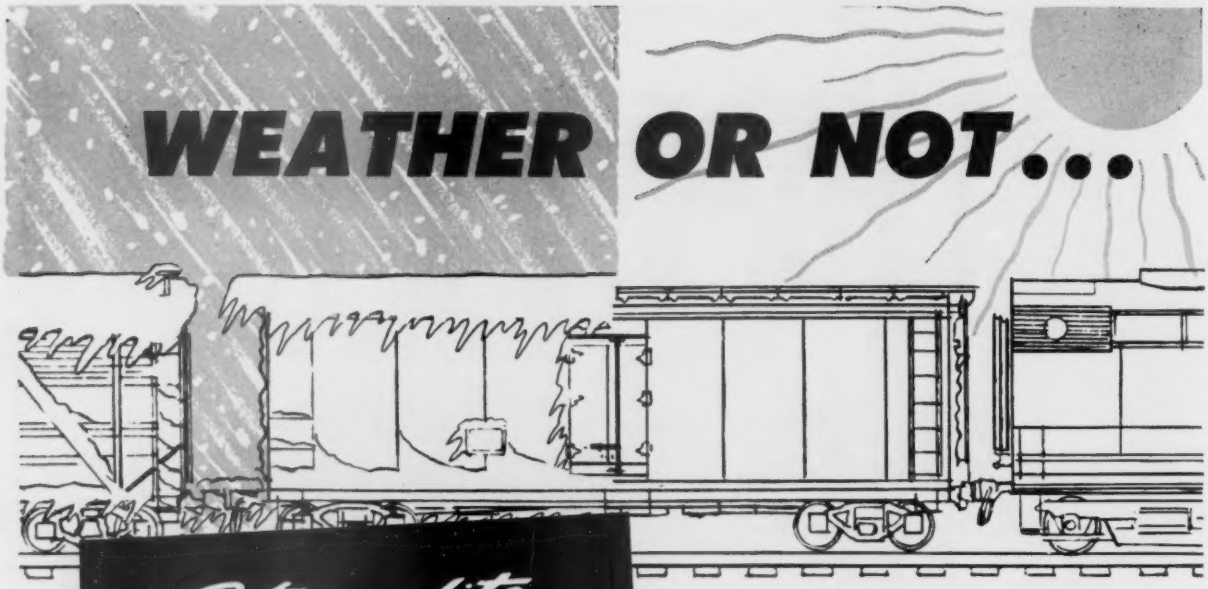
As a result, the railroads' earnings are reduced — and the nation loses some of the benefits of railroad progress. In your interest — in the interest of *every* American family — railroads should be permitted *equal* opportunity to earn an adequate return on their investment. *Isn't this common sense?*

AMERICA MOVES AHEAD WITH THE RAILROADS

Association of American Railroads, Washington, D. C.

YOUR BASIC TRANSPORTATION

WEATHER OR NOT...



Streamlite HAIRINSUL

protects perishables under all conditions

SIX MAJOR REASONS WHY LEADING REFRIGERATOR CAR LINES SPECIFY *Streamlite HAIRINSUL*

1. **LOW CONDUCTIVITY.** Thoroughly washed and sterilized, all-hair heat barrier. Rated conductivity—.25 btu per square foot, per hour, per degree F., per inch thick.
2. **LIGHT WEIGHT.** Advanced processing methods reduce weight of Streamlite Hairinsul by 40%.
3. **PERMANENT.** Does not disintegrate when wet, resists absorption. Will not shake down, is fire-resistant and odorless.
4. **EASY TO INSTALL.** Blankets may be applied to car wall in one piece, from sill to plate and from one side door to the other. Self-supporting in wall sections between fasteners.
5. **COMPLETE RANGE.** Streamlite Hairinsul is available ¼" to 4" thick, up to 127" wide. Stitched on 5" or 10" centers between two layers of reinforced asphalt laminated paper. Other specified coverings are available.
6. **HIGH SALVAGE VALUE.** The all-hair content does not deteriorate with age; therefore has high salvage value. No other type of insulation offers a comparable saving.

Car building engineers have long recognized that Streamlite HAIRINSUL is the most efficient insulation under all operating conditions. A half century of successful use is proof enough that service conditions never retard its high insulating efficiency.

Not only is Streamlite HAIRINSUL a one-time investment; it actually outlives the life of the car and can be salvaged in perfect condition for use in new cars.

AMERICAN HAIR & FELT COMPANY
Merchandise Mart • Chicago, Illinois

SETS THE STANDARD BY WHICH ALL OTHER REFRIGERATOR CAR INSULATIONS ARE JUDGED

the new

the world's finest tamper... now the world's *fastest!*

new, higher production of better tamped track

HERE IS the world's highest tamping efficiency. In dollars per foot of perfectly tamped track, the *Matisa Speedtamper* will give your M/W budget a real assist.

This machine retains the unbeatable Matisa principle of vibration-compaction tamping with the machine load always on tamped track, but now has many *PLUS* features:

Now hydraulically positioned tamping units for positive action, faster production. The *most efficient use of hydraulics has been applied throughout the machine.*

Now V-belt drives with multiple disc clutches — adds safety, cuts maintenance, eliminates gears and noise.

Now instantaneous split-head operation switches from speed surfacing to deep tamping without interruption.

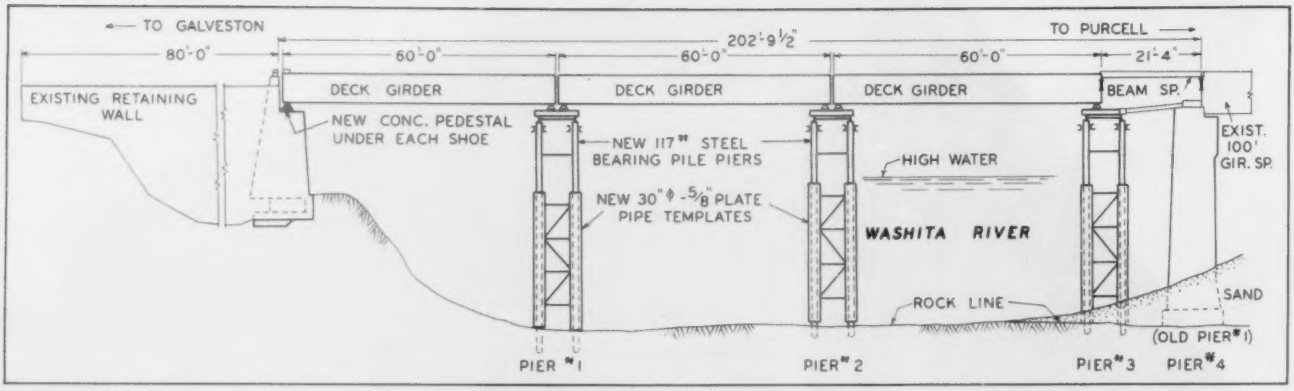
Now pneumatic control valves with assured separate air supply from a small compression on the diesel engine.

For details, write for the New *Matisa* Speedtamper brochure.

MATISA EQUIPMENT CORPORATION

1020 Washington Avenue • Chicago Heights, Illinois

COPYRIGHT 1957, MATISA EQUIPMENT CORP.



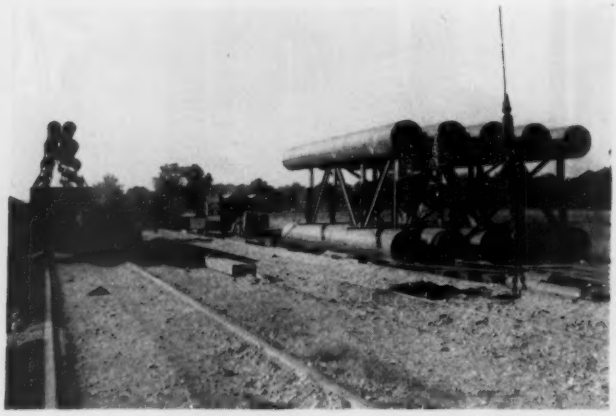
Cross section of Santa Fe's new bridge across Washita River

Use of pipe templates for the construction of three new piers and the erection of three 60-ft deck girders and a 21-ft beam span was Santa Fe's answer in rebridging a fast stream after a derailment demolished a 200-ft truss span.

Fast Rebridging in Fast Water

Derailment collapses truss span

WRECKAGE of old span is pulled away before reconstruction begins. Cables extend to tractors on shore. Embankment had been weakened by 30 days' rain.

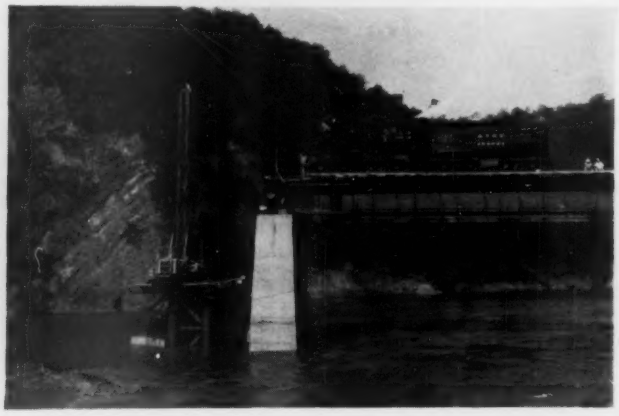


Templates fabricated . . .

TO DRIVE PILES, templates were prefabricated in sets of five pipes, then shipped to bridge site for assembly into pairs as above. Pipes are 30 ft long.

. . . Lowered in position

ERECTION DERRICK lowers template for new pier. Guide lines to shore assist in accurate placement. Engineers using transits direct this operation.



. . . Rig drills holes . . .

DRILL RIG is set on platform atop the template. Through the 30-in pipes, holes were bored 6 ft into the rock streambed. These holes were 20-in. diameter.

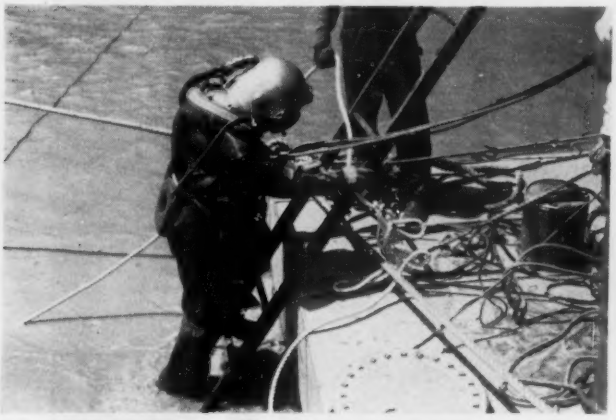
How It Was Done——p. 25——➤

. . . To receive H-beams

STEEL PILES are inserted through pipes into drilled holes. After driving by pile hammer, piles were grouted in place and templates later were filled with stone.

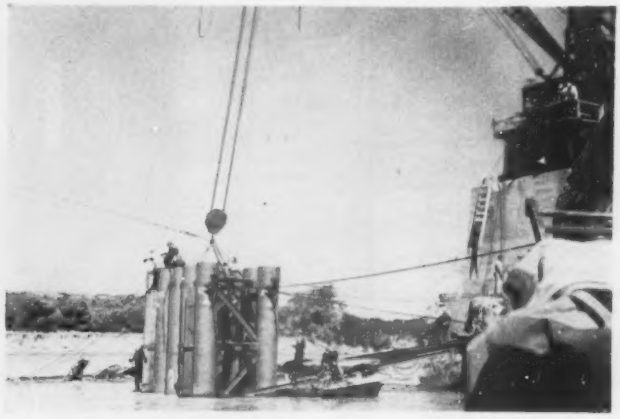
Shore-to-shore radio

COMMUNICATIONS with the opposite shore are maintained with a Motorola walkie-talkie set. Men are transported back and forth by outboard motor boat.



Diver checks bottom

UNEVEN ROCK streambed posed special problem, and diver was used to check the bottom of each pipe in the template with the rock surface. Inserts in pipes were used to close gaps.



Extra reach needed

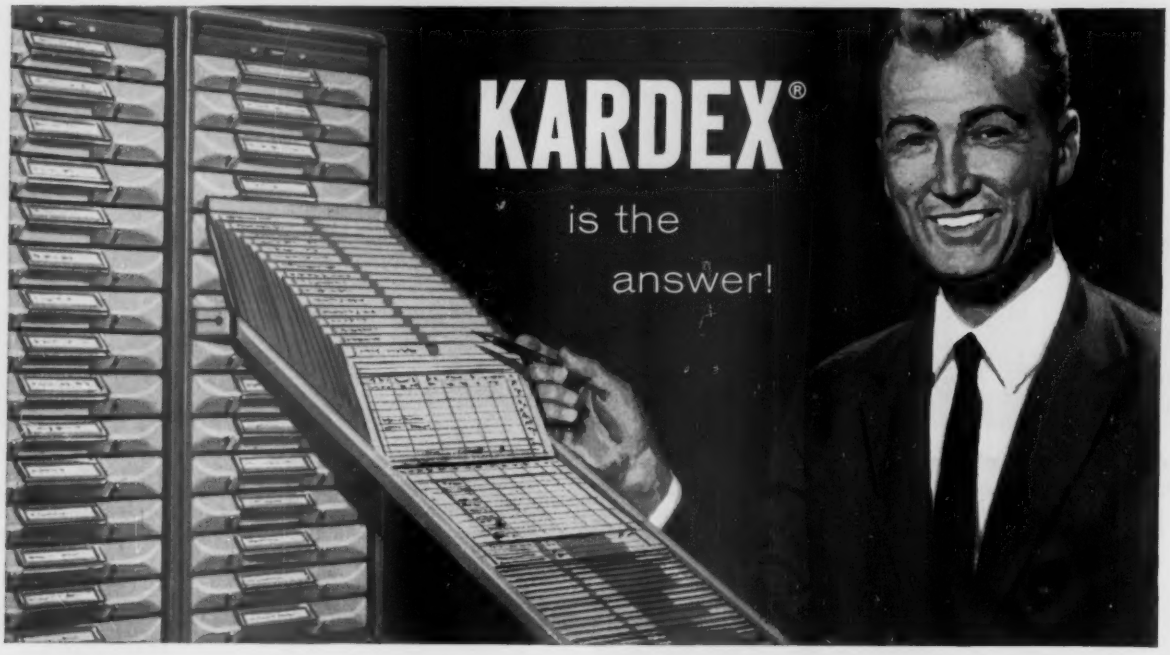
BOOM OF THE ERECTION derrick wouldn't reach Pier No. 1 and template is out-hauled by a line to a locomotive crane on opposite shore. Guide frame on barge helped in placement.

Girder span swings around

FIRST 60-FT GIRDER span is set at the east end after piles were cut off and capped and bridge seats constructed. Creosoted ballasted deck was the next step.

25 days later . . .

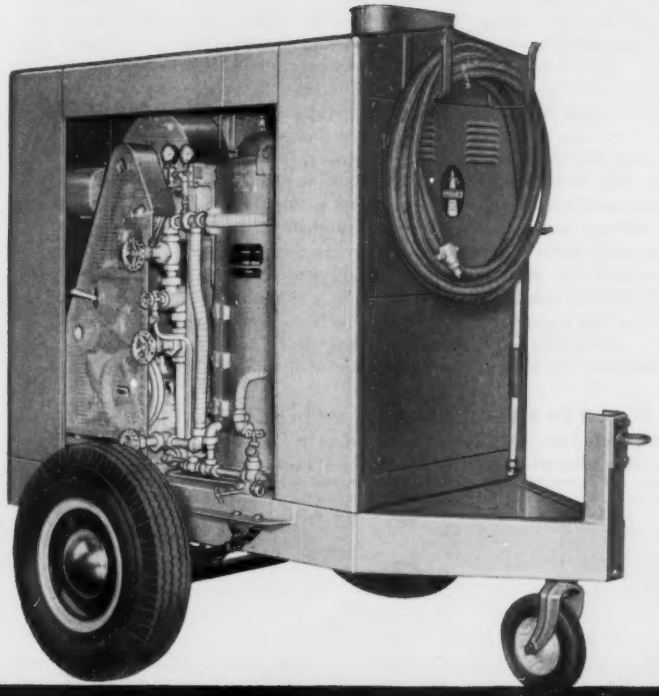
TRAFFIC WAS RESUMED over the new bridge on June 27, just over three weeks after job began. Much clean-up work was still ahead as first trains began using the new span.



KARDEX Visible provides the perfect see-at-a-glance record-keeping system for personnel departments. A centralized employees history record in KARDEX brings pertinent facts about each worker into a compact, time-saving Visible file. And this is only one of the many personnel records (from application forms to termination notices) that becomes instantly available when housed in KARDEX.

To learn how KARDEX can immeasurably aid your entire personnel operation and of the many other time and cost saving suggestions offered by Remington Rand, write today to Room 2057, 315 Fourth Avenue, New York 10, New York. Ask for FREE folder "Personnel Administration" (X1464).

Remington Rand
DIVISION OF SPERRY RAND CORPORATION



Clean more cars—faster

for profitable

high class ladings

VAPOR UPGRADER SENIOR

A complete cleaning unit — available with trailer wheels, shop wheels or skid-mounted.

Here's how you put cars in Class A condition—and save as much as 85% in car cleaning costs! VAPOR UPGRADER is a quick, convenient steam-hydraulic cleaner that enables one man to thoroughly wash the average car interior in 10 minutes. And, a 30 car-per-day schedule, per man, is not uncommon. Your cost: less than a dollar per car! Think of what this means in operational savings and faster-back-in-service added earnings.

VAPOR UPGRADER'S high capacity delivers a large quantity (1500 gallons per hour) of high temperature (180°) water at 250 psi. to blast away dirt and encrustations. Then, after car is clean, high pressure steam is delivered at 175 pounds pressure to thoroughly scour every board and crevice. Stubborn oil and grease is quickly dissolved with the use of detergents—applied *automatically* from an optional Upgrader tank or your own drum. Floor boards needn't be removed. And, VAPOR UPGRADER is safe — neoprene or other sealant finishes are left unaffected. Here's an investment that pays its own way!

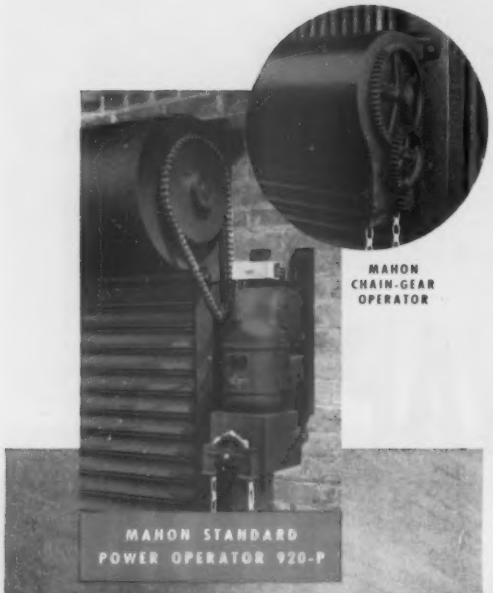
For Detailed Information—Write for Bulletin 596A

VAPOR HEATING CORPORATION

80 East Jackson Blvd., Chicago 4, Illinois Offices in Principal Cities

Rolling Steel Doors

Manually, Mechanically or Electrically Operated



In truck openings, loading dock openings, and railroad openings, in modern plants and warehouses where the time element and operating space requirements are primary considerations, the rolling steel door has no equal . . . because, a quick-opening, quick-closing, power operated rolling steel door saves both time and space. The vertical roll-up action is fast—requires no usable space either inside or outside the opening. And there are no overhead tracks or other obstructions to restrict headroom and interfere with crane handling or stacking of goods or materials adjacent to the door opening. No other type of door can give you this space-saving compactness in operation . . . and no other type of door can give you the positive security, firesafety and permanence inherent in a good rolling steel door. The all-metal construction of a rolling steel door reduces maintenance to a negligible factor, and assures you a lifetime of continuous, trouble-free service. When you buy a rolling steel door, it will pay you to check specifications carefully . . . you'll find that Mahon doors are built better to give you better service over a longer period of time —for instance, the galvanized steel in Mahon curtain slats is BONDERIZED and DIP-COATED with Synthetic Enamel which is baked on at 350° F. prior to roll-forming. This is just one of the extra-value features of Mahon Rolling Steel Doors . . . comparison will disclose many others that add up to a much better door investment. See Sweet's Files for information or write for Catalogue G-57.

THE R. C. MAHON COMPANY • Detroit 34, Michigan

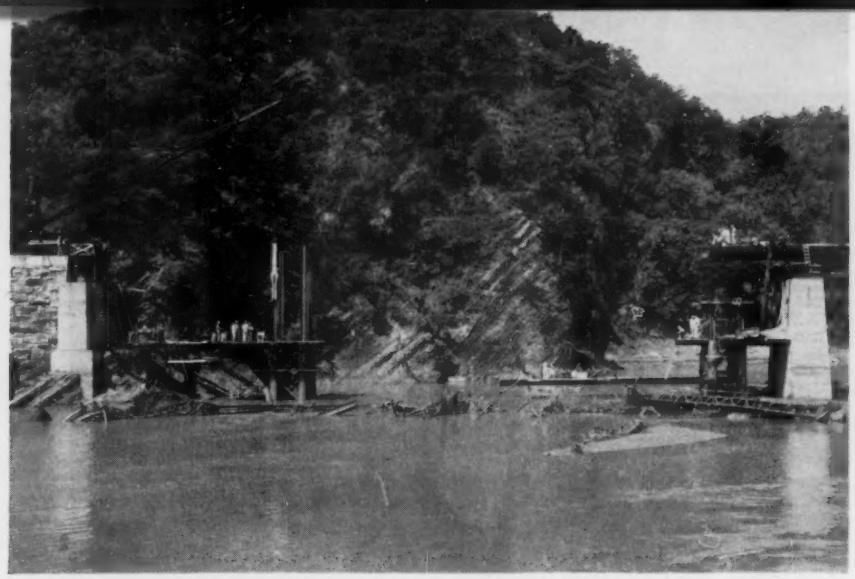
Sales-Engineering Offices in Detroit, New York and Chicago • Representatives in Principal Cities

Manufacturers of Rolling Steel Doors, Grilles, and Automatic Underwriters' Labeled Rolling Steel Fire Doors and Fire Shutters; Underwriters' Rated Fire Walls; Insulated Metal Curtain Walls; Electrified M-Floors; Acoustical and Troffer Forms; and Steel Roof Decks and Long Span M-Decks.

ROLLING STEEL DOORS, SHUTTERS AND GRILLES TO MEET EVERY REQUIREMENT

Shown above are Eight of Thirty-four Mahon Rolling Steel Doors installed in a new, modern building for the Giant Food Distribution Center, Landover, Maryland. Eighteen of these doors were installed in Double Truck Openings and Four in Railroad Openings. Stanford Construction Company, Inc., General Contractors.

MAHON



TO ASSIST in placement of Pier No. 2 template, guide frame is built out from Pier No. 3 (right), while piles for Pier No. 1 (left) are being driven. Cage, suspended below pile hammer, holds it vertical while driving.

New Twist in Rebridging

June 2, 1957, opened a new chapter in the history of emergency bridge reconstruction on the Santa Fe.

Reports came in that day that an embankment, saturated after 30 days of rain, had given away under a northbound freight train near Dougherty, Okla., derailing it. Some of the derailed cars had plunged down the embankment and others, still drawn by the locomotive, had crashed into and collapsed a 200-ft single-track Pratt truss span over the Washita river, dropping it and about 20 cars into the swollen stream.

Even while the wrecker was on its way to pick up the cars, the engineering department was mobilizing its forces to rebridge the river. It was evident immediately that the job wasn't going to be easy. Driving a timber trestle was out of the question because the streambed was scoured down to rock by the fast, deep water. Perhaps, it was reasoned, H-section steel piles could be driven into the rock. But a test pile failed before sufficient penetration could be obtained.

It was evident that extraordinary measures would be needed. The engineers intended to bridge the gap with a structure consisting of three 60-ft deck-girder spans and a 22-ft beam span. The real problem was how to construct three new piers to support these spans. The river was swift, loaded with drift and, because of recurrent storms in the watershed, its depth was varying between 10 and 33 ft. To help in finding a solution the Santa Fe engaged as consultants the firm of Brown & Root, Houston, engineers with considerable experience with marine projects.

The recommendation of the consultants was to construct the three new piers of 14-in. 117-lb steel H-piles inserted and grouted in holes drilled 6 ft into the rock, each pier to consist of 10 piles arranged in two bents of five piles each. To enable the rock drilling to be carried out with accuracy in the fast water, it was decided to prefabricate a heavy template for each pier, which would be positioned and lowered in place and held firmly by cables while the pile holes were bored with a rotary drill rig set on a platform built on top of the template.

Each template was constructed of 10 steel pipes 30 ft long and with outside diameters of 30 in. Prior to shipment to the site the pipes were fabricated into bents each consisting of five pipes welded together by pipe spacers 13 in. in diameter. At the site the six bents were arranged in pairs to form the three pier templates needed. In each pier template the bents were spaced 8 ft apart. All fabrication was by welding.

When the first pier template had been completed, it was loaded on a flat car and pushed behind a steel-erection derrick to the north side of the former truss opening. The erection derrick, capable of lifting 40 tons at a 53-ft radius, then picked up the 33-ton pipe template and swung it in place for new pier No. 3 (see diagram). It was held in position by four cables, fastened to its upper and lower ends and running to pieces of rail anchored into the rock on the upstream side of the river. Engineers using transits directed the positioning of the template.

To hold the pier template firmly upright, four 14-in. 117-lb H-section anchor piles were driven 8 in. into the rock by a McKiernan-Terry 10 B3 hammer suspended from a jib and operated by compressed air furnished by one of the road's new pile-driver outfits. A metal cage was attached below the hammer to hold it vertical while it was driving.

How Holes Were Drilled

With the template anchored in position, a wood platform was built on top of it and a rock-drilling rig, having a 20-in. diameter rotary drill, was set on the platform. This rig, working through the pipes, drilled holes 6 ft deep into the rock at each of the 10 pile locations.

Because of the unevenness of the rock surface a diver was employed to determine how each pipe of the template was setting with respect to the rock. Based on his measurements, inserts of 27-in. O.D. pipe were cut and dropped down the pipes of the template to close gaps between the lower ends of the pipes and the rock.

Following this, H-section piles were driven into the drilled holes and grouted in place. The pipes of the template were then filled with crushed stone and grouted. The piles were cut to proper elevation, after which they were capped and cross braced and a bridge seat was constructed of H-section members. This work was done by welding and was followed by the setting of the bridge shoes.

The next step was the construction of pier No. 1. For this operation the equipment had to operate from the south bank. To reach that position it was necessary to move equipment over a 50-mi detour.

Out-Hauls for Long Reach

The procedure used in constructing pier No. 1 was essentially the same as for new pier No. 3, except that a guide frame, bearing against the south abutment, was used to assist in placing the template. Also, because pier No. 1 is 60 ft from the south abutment, it was beyond the reach of the derrick boom. For this reason a 75-ton locomotive crane, working on the opposite side of the stream, was employed to out-haul the steel-pipe template while it was being set in place.

Another change in procedure was to mount the four steel anchor piles on the template before it was placed. This was done by temporarily bolting the H-piles to small brackets welded to the template pipes. When the pier template had been properly positioned, the bolts were burned off, allowing the anchor piles to drop to the rock where they were driven in about 8 in. While pier No. 1 was being constructed, the beam span between new pier No. 3 and old No. 1 was constructed.

New pier No. 2 was built in much the same manner as the others. The new 60-ft girder spans were swung into place and a creosoted ballasted deck was constructed. The track was then laid across the bridge and the first train was run over it on June 27, just 25 days after the collapse.

HOW ARE THEY DOING?

ON THE RIO GRANDE

Optimism and a Forward Look

Beginning October 1, the 2,150-mile Denver & Rio Grande Western will offer a selected segment of the Denver-Salt Lake City passenger market an attractive "package deal" built around reduced fares. Its action is significant both because reduced fares are contrary to the current trend and as an indication that pessimism about passenger business hasn't as yet penetrated to mile-high Denver.

And if present conditions continue, it probably won't. For with both its passenger and freight service, the Rio Grande is modestly enjoying a comfortable measure of optimism. The road's officers disclaim any special managerial abilities and accept credit for few innovations. Asked recently for a reason for the relatively pleasant status of the road today, one vice-president remarked, "Perhaps we've just practiced better techniques longer and more consistently."

But whatever the reason, the Rio Grande will find that its 1957 results can best be described in the terms used for one of its newly painted box cars: solid black figures on a background of "Grande gold" and silver. The year 1956, despite a slow start, was a record-breaker for the mountain road. The year 1957, from current indications, will be even better.

Last year the Rio Grande realized a net of just under $12.2 million on a gross of $81.3 million. This year it expects its gross to be something over $87 million, with enough left after costs and taxes to equal $6 per common share against $5.61 in 1956. And the record to date appears to bear out the prediction: At the end of July, Rio Grande's net was $7,251,716—or $1,134,396 ahead of that time in 1956.

Obviously, this isn't the Rio Grande of the early 30's and before—a run-down property consumed by debt and with history checkered by bankruptcy, struggling for its very life as an independent carrier. Indeed, the restoration process began when the road again turned its empty pockets inside out in 1935 and placed itself at the mercy of the court.

Before expenditures were channeled largely into equipment in 1953, a total of $150 million went into property improvements and rolling stock beginning in 1936. To be sure, the impetus of wartime business helped the Rio Grande's recovery a great deal, as has the recent rapid development of natural resources in Colorado and Utah. But still the spending program goes on where needed. The Rio Grande hasn't deferred maintenance for years except when men and materials weren't to be had in wartime; this year capital expenditures will total some $8.4 million.

Businessman's "Package"

The October 1 passenger-fare reduction is this: Round-trip first-class ticket good only on the overnight "Prospector" will be offered at 1.5 times the one-way fare instead of the present 1.8. Rates on Pullman accommodations will come down in the same proportion—the first time in recent years this has been done. The tickets will have a 25-day limit.

The rest of the package is equally interesting; four run-of-the-menu meals—dinner and breakfast both ways—for $8. A traveler who buys the "package" will find that the airlines' pricewise edge over the Rio Grande in the Denver-Salt Lake City market has disappeared.

The strategy behind the reduction demonstrates two interesting facets of the Rio Grande's corporate personality: its desire to seek out revenue—even from passengers—by whatever means necessary, and an occasional independence of action when industry policies don't, in the Rio Grande's estimation, apply to conditions amid the Rockies.

This traditional independence has occasionally impelled the Rio Grande into unexplored fields. Fuel and mechanical research are, of course, outstanding examples. In experimenting with radioactive isotopes as tools for testing, the road is pioneering among railroads—and to some extent among industries generally. This fall should see several new developments come out of the well-equipped research laboratory.

Saving Through Research

The Rio Grande can pay for much research out of what it's saving through research. For instance, the road has brought the cost of its diesel fuel per thousand gross ton-miles down from 30.59 cents in 1952 to 23.54 cents in 1956—and further reductions are in sight. A new rail section weighing 106 pounds to the yard is being tested in actual service. Considered heavy enough by the Rio Grande for a dieselized railroad, it's cheaper than heavier standard sections.

The Rio Grande, however, wants not only to save money but to make it through new traffic as well. Recognizing that its rates and service are much the same as its competitors', the road concentrates on what it calls the "little things."

And at the same time, Rio Grande traffic salesmen are given as many tools as possible to work with. Important among these is as much knowledge as possible about the railroad itself. Off-line representatives do a stint at the home office. Each agency is given periodical reports which show the revenue derived from each shipment, to carry out the road's policy of making its salesmen both cost and revenue conscious.

All this, coupled with a remarkable growth of the Colorado-Utah territory, makes pleasing music for the Rio Grande. But there are discords—a major one being the road's 264 miles of narrow-gage line. Right now, oil developments in the territory are giving the narrow-gage some traffic in pipe and supplies.

The narrow-gage passenger operation of the "Silverton," smartly promoted, is profitable as a summertime tourist attraction. Chances are it'll continue as long as its aged equipment holds together.

But all in all, the future looks good to the Rio Grande. On-line coal mines are working the year round in response to increased demands for export coal.

HIGH SPOTS and low spots are easily reached by the new vacuum cleaners.

King-Size 'Vacuum' Cleans Cars Fast

The big brothers to the housewife's vacuum cleaner are now working along 14,000 ft of track in the car cleaning section of the CNR Turcot yard at Montreal. A sturdy, mobile, truck-mounted machine for heavy work, it is said to vacuum a dusty or powdery box car to new car cleanliness in an average of 15 minutes. Each truck is operated by a two-man gang. Both men perform cleaning work, but one man is responsible for operating the truck and power equipment mounted on it.

The car cleaner offers three tangible benefits. The customer gets a spotless car for first class shipments. The employees who clean the cars apreciate the speed and ease of the operation. The railroad cuts maintenance time considerably.

It Gets to the Corners

The suction hoses can be equipped with vacuum heads, brushes or 'T' shaped nozzles, for a variety of uses. The machine has the ability to reach into inaccessible corners, sucking out refuse that would have been missed by a broom and doing it faster. Its efficiency is reflected in upgrading of cars, with up to 80 per cent upgrading being recorded, making more and more cars available for first class freight.

The CNR has eight of these units mounted on special cabless truck bodies, equipped with belt-driven centrifugal exhausts, 12 cu ft secondary dust separators and six drums with special lids that constitute the primary separators. Each truck has two 50 ft lengths of 2-in. vacuum hose. Two trucks are equipped for wet cleaning box car interiors. At average speed, the units can clean and prepare for service 150 cars daily.

The car cleaning yard is on the north side of Turcot West Yard in Montreal, and has a capacity of about 270 cars. Roadways for truck movement are provided on each side of the six tracks. Tracks 3 and 4 pass through a concrete block decontamination building, which has a capacity of four cars.

Cleaning of the cars is done in three operations—removal of dunnage, removal of dry fines and wet cleaning. For dunnage removal two specially designed trucks have been placed in operation. There are two one-cubic-yard "converto" dump units on the rear platform of each truck. The dump units are raised hydraulically to the level of box car floors. Each truck is equipped with a 120-watt lighting system for illuminating box car interiors.

After the car has been spotted on the cleaning track, the dunnage truck drives up and cleans out the dunnage: blocks, steel strapping, boards and nails. The vacuum truck is then spotted at the box car door. Each man vacuums half the car, including walls and ceiling if necessary. The dirt is pumped into drums on the car body for easy removal and replacement.

Inspectors then follow and determine if the car is OK. If so, it is tagged for service. If wet cleaning is necessary, it is done outside in the summer time and in the decontamination building in the winter.

In addition to the mobile vacuum cleaners, the CNR is designing and will soon test similar vehicles for wet washing, scrubbing and drying freight cars. If all tests prove successful, freight yards over the system will be equipped.

MOUNTED on a cabless truck chassis that takes the cleaner to the job, up-grading in done efficiently and fast.

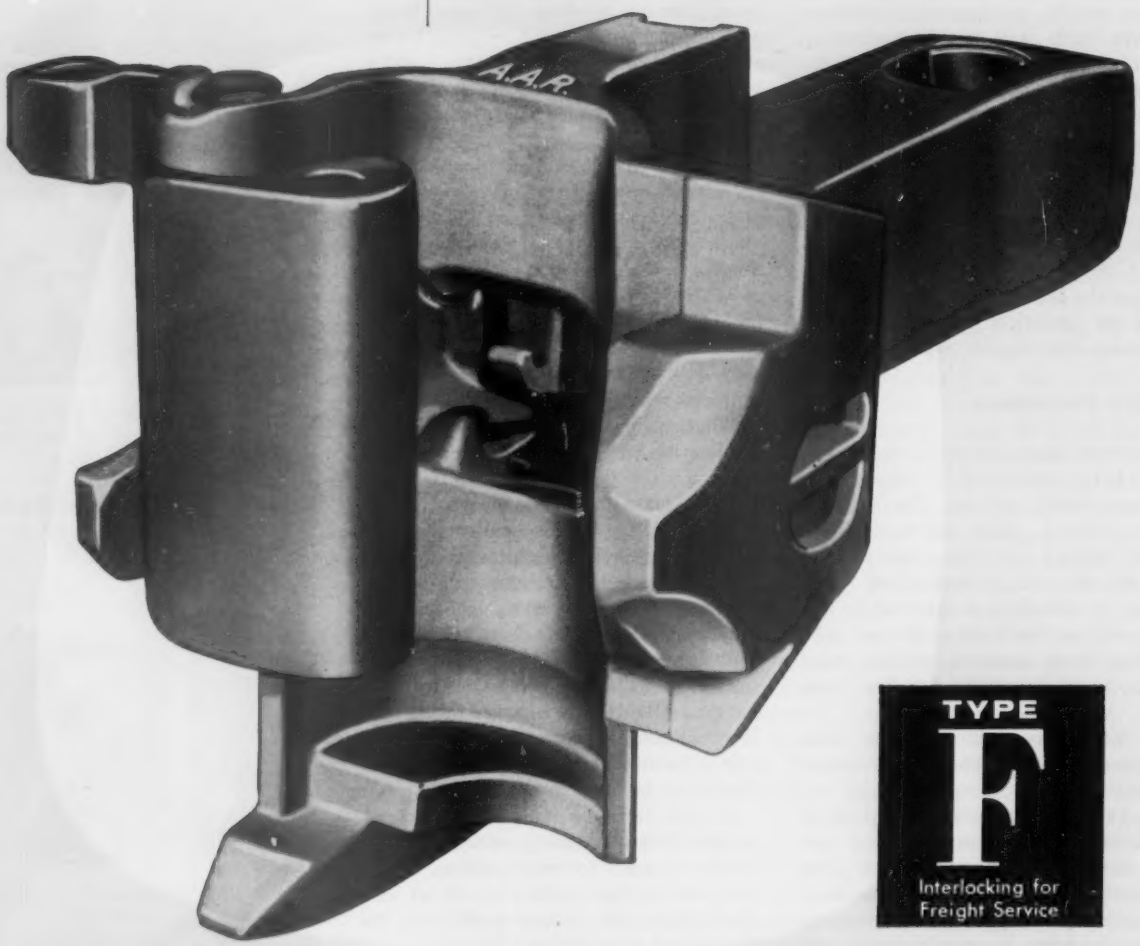
THE ROOF gets its share of attention.

There's Improved Railroading with

National Specialties

Example:

NATIONAL

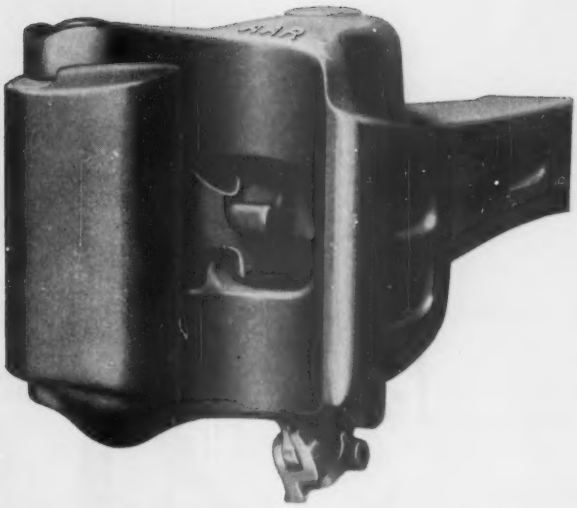


TYPE

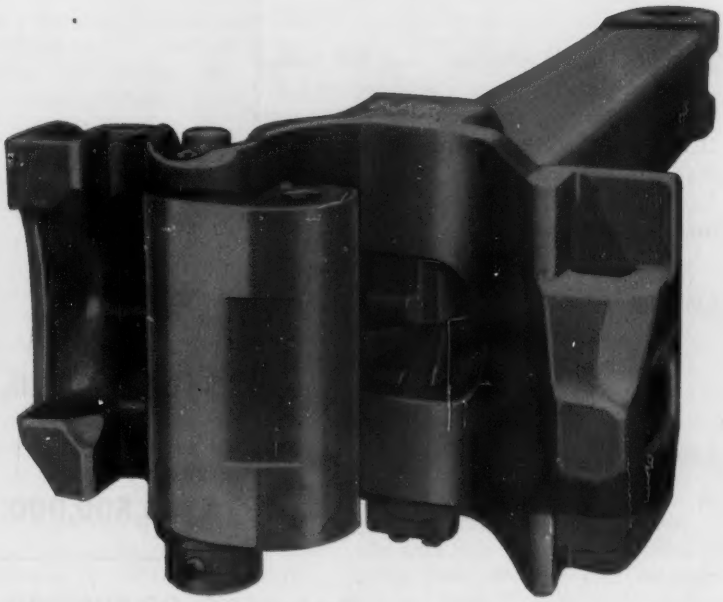
F

Interlocking for Freight Service

TYPE
E
Standard for
Freight Service



COUPLERS



The development of the automatic railroad coupler parallels the experience of National as a coupler manufacturer. And today, as always, National couplers meet all AAR specifications for gauging and inspection. Close quality control, unmatched testing facilities, nationwide and international service—spell National coupler leadership. Always look for the name National—the name that *means* couplers.

AA-5268

TYPE
H
Tightlock for
Passenger Service

NATIONAL MALLEABLE and STEEL CASTINGS COMPANY

Railway Division Headquarters
Cleveland 6, Ohio

International Division Headquarters
Cleveland 6, Ohio

Canadian Subsidiary
National Malleable & Steel Castings Company
of Canada, Ltd. • Toronto 1, Ontario

Established 1868

GEARED TO PROGRESS
P R I
MEMBER

COUPLERS • YOKES • DRAFT GEARS • FREIGHT TRUCKS • JOURNAL BOXES

1,650 cars
21,700 months
of service without a hot box!*

*That's the record rolled up using R-S journal stops and roll-type waste packing on 1,650 Frisco freight cars! On home rails, they've gone 21,700 months without a single hot box—proof that, properly contained, A.A.R. Approved Journal Box Packing will give long, economical, trouble-free service.

And look at the savings. As an example:

2,000,000	Freight cars packed with substitutes such as pads, etc., not yet proved *in service*, @ an average price of about $50.00 per car set	**$100,000,000.**
2,000,000	Freight cars packed with approved A.A.R. Journal Box Packing @ approximately $4.90 per car set	**$ 9,800,000.**
	Savings	**$ 90,200,000.**

It all adds up to real economy when you stick to tried-and-true measures. In short, there is no economical replacement for A.A.R. Approved Journal Box Packing.

INSTITUTE OF THREAD MACHINERS, INC.

141 East 44th Street, New York 17, New York

Atlas Processing Corp., New York, N. Y.
Meyer Burstein & Sons, Neenah, Wisconsin
Dallas Waste Mills, Dallas, Texas
The J. Milton Hagy Waste Works, Philadelphia, Pa.
John J. McGrath, Inc., Philadelphia, Pa.
Miller Waste Mills, Inc., Winona, Minn.
National Waste Company, New York, N. Y.
O'Neill Brothers, Inc., Philadelphia, Pa.
The Pittsburgh Waste Co., Inc., Swissvale, Pa.
Riverside Mills, Augusta, Ga.
Royal Manufacturing Company, Perth Amboy, N. J.
Southland Manufacturing Co., Inc., Norfolk, Va.
Twin City Textile Mills Waste Co., St. Paul, Minn.

Current OPERATING DEPARTMENT Questions

What kind of supervisory "job" training?

[This question was suggested to me by the remarks of one railroad chief executive who was quoted in Railway Age Editor Jim Lyne's "Railroading After Hours" column of August 26. This executive said that while he favored management development courses, "I am also in favor of a system of education that will teach a superintendent all he needs to know (and it is a lot) about how to be the best possible superintendent. And the same goes for all other management and supervisory positions." Specific railroad duties were what this executive had in mind.

I wrote a few people asking what their roads are doing or have done in the way of providing such training. Here are a couple of replies.—*G.C.R.*]

"The Canadian Pacific's approach to managerial development and education has been based on the primary importance of stressing education on the job by the supervisor of his subordinates. This is the basis of our program of managerial appraisal and development and we feel that is the fundamental way of providing job training.

"This, however, does not exclude taking advantage of programs of general management training such as are available at a number of major universities. To this end, selected officers of Canadian Pacific have been attending management development courses such as are available in Canada at Dalhousie University, the University of Western Ontario and the Banff School of Advanced Management, supported by four western universities. These are courses lasting about a month and acquaint the candidates with general managerial problems and with techniques for solving them which may be applied by our officers to the day-to-day problems of running a railroad.

"In addition to this, many of our officers regularly attend seminars and conferences such as are sponsored by the American Management Association, the Industrial Relations Research Association and the many associations of railroad officers in Canada and the United States to which they may be drawn by a community of interest in job performance or in the broader questions of railroad management."—*S. M. Gossage, assistant vice-president, personnel, Canadian Pacific.*

Which supervisors receive training?

"On the Pennsylvania, we are firmly convinced that proper educational programs not only are desirable but that they are required if our railroad is to keep pace with developments in other industry. The major problems involve the availability of sufficient funds for this purpose, proper selection of the type of training, and a gradual approach to any new type of training to assure that it is the most advantageous that can be secured, and the proper selection of individuals to participate in these development programs.

"Eight years ago the Pennsylvania inaugurated a training program in human relations for supervisors from the level of gang foreman to the general manager's staff. It consisted of a two-hour session one night a week for 15 weeks. It was conducted in cooperation with 12 universities which supplied conference leaders. The programs were developed jointly by the railroad and the universities. Diplomas were awarded to the 6,000 who "graduated" from these courses during the four years they were in existence. The benefits were measurable both in terms of morale and improved performance.

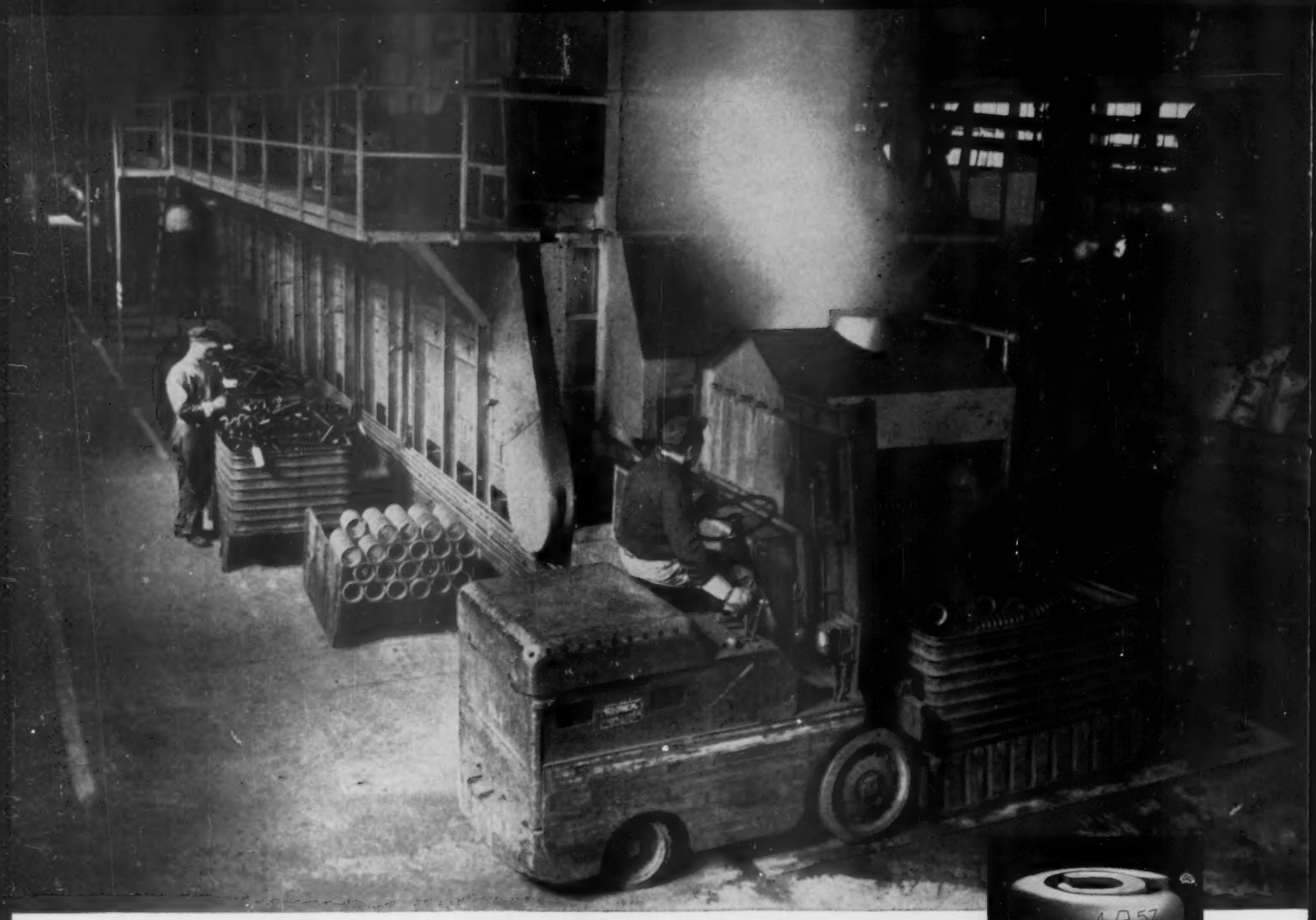
"Our next step was to conduct training courses for our supervisors (approximately 2,000) in the yardmaster and agent group. This was an entirely different approach, with the individuals being released from their assigned duties. They gathered in groups of 25 to 30 on the campuses of Purdue University and Penn State's Center at Ogontz, where they lived, slept, ate and studied together for a five-day period. University and management officers participated in presenting these courses. Again, the benefits for this group were extremely outstanding. Similar seminars have been held for other supervisory groups from, among others, the methods and cost control, safety, medical, personnel and public relations departments.

"For the past two years a large number of our administrative and executive officers have attended the American Management Association courses, as well as the six-week and 13-week college courses in general management. Again, the results were extremely beneficial, although we question the desirability of the 13-week course. It is too long for a man to be away from his regular assignment and he becomes restless after passing the mid-period. This type of educational program is to be continued in permanent places.

"Our personnel department now is reviewing the entire matter to determine what type of educational program we will reinstate for the lower half of our supervisory group.

"To date, no consideration has been given to providing further technical information to any of our rank and file employees. While undoubtedly such action is desirable, at present we consider it more important to give proper training to the supervisory, administrative and executive group. Of course, if an outstanding individual should come to our attention who needs or desires additional technical information, we would probably be only too glad to cooperate in seeing that he acquired that additional knowledge. We might ultimately come to a definite program in that respect."—*J. P. Newell, vice-president, Pennsylvania.*

CONDUCTED by G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, Railway Age, 30 Church Street, New York 7.



ALCO FREIGHT CAR TRUCK SPRINGS GUARANTEED FOR 10 YEARS

Uniform quality ALCO guaranteed springs are made to exceed AAR specifications; now you get even greater protection against replacement need.

On railroads around the world, ALCO springs have proved themselves again and again. They are so time-honored, ALCO can afford to guarantee these freight car truck springs against breakage for at least ten years.

ALCO FREIGHT CAR SPRING has date of manufacture stamped on coil. If it breaks within a period of ten years from that date, a new spring will be furnished free of charge by ALCO.

This ALCO guarantee applies to these springs*:
(Standard AAR Designs)

1. 2½-in. travel
2. 3⅛-in. travel
3. 3½-in. travel
4. 1915-D
5. 1936-D-2

*Except springs for brine refrigerator cars.

Order ALCO guaranteed freight car springs for your next requirements. You will be assured of top quality and superior service by one of the nation's largest railroad suppliers. Call your nearest ALCO Sales Representative or write Spring & Forge Division, Dept. SGR-3, P. O. Box 1065, Schenectady 1, New York.

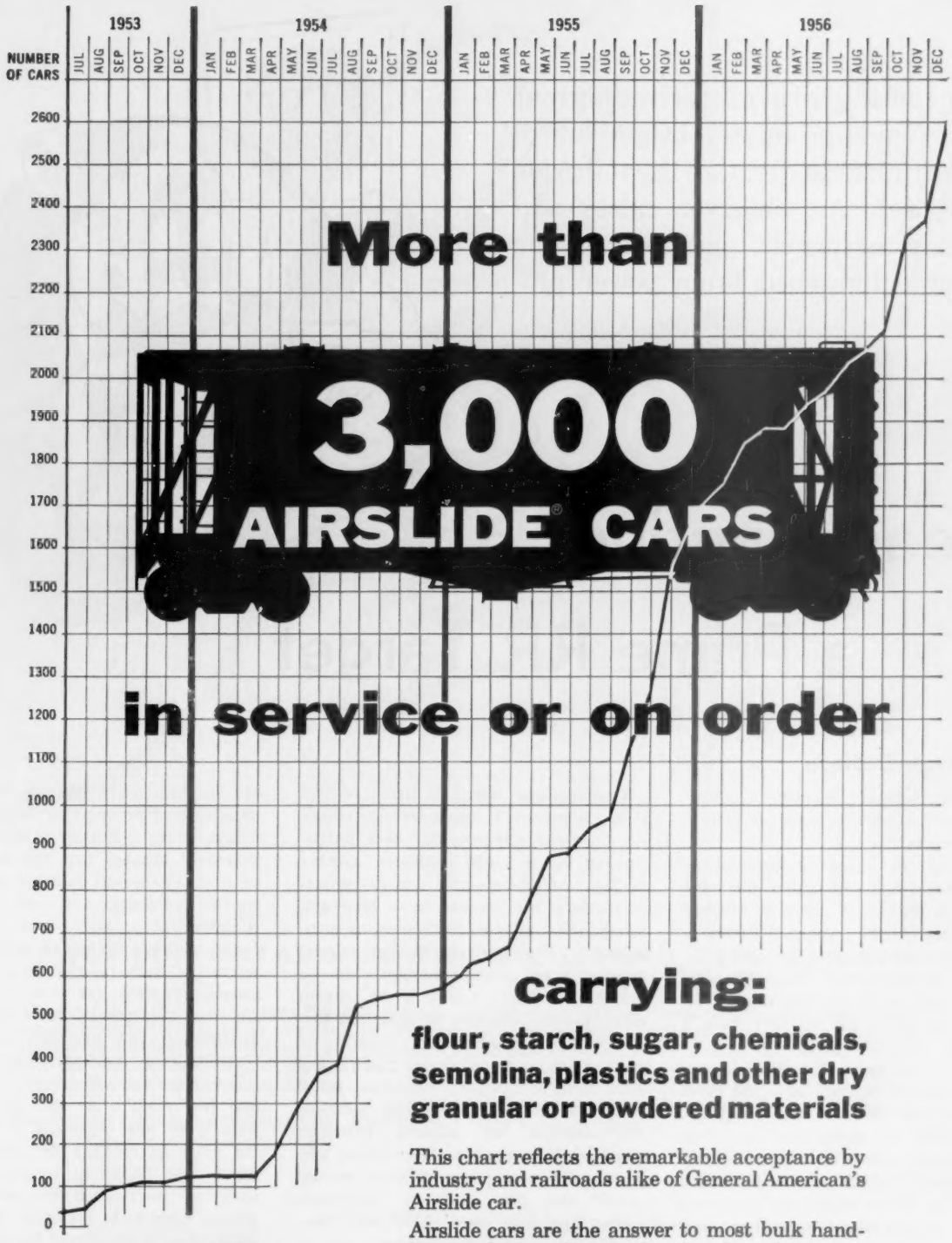
ALCO

ALCO PRODUCTS, INC.

NEW YORK

Sales Offices in Principal Cities

Locomotives · Diesel Engines · Nuclear Reactors · Heat Exchangers · Springs · Steel Pipe · Forgings · Weldments · Oil-Field Equipment



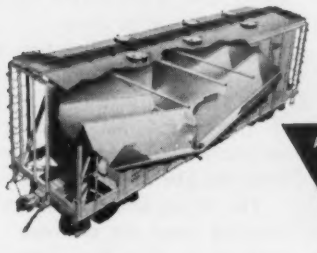
carrying:

flour, starch, sugar, chemicals, semolina, plastics and other dry granular or powdered materials

This chart reflects the remarkable acceptance by industry and railroads alike of General American's Airslide car.

Airslide cars are the answer to most bulk handling problems. Contamination-free shipment, elimination of containers and associated costs mean additional profits—for you.

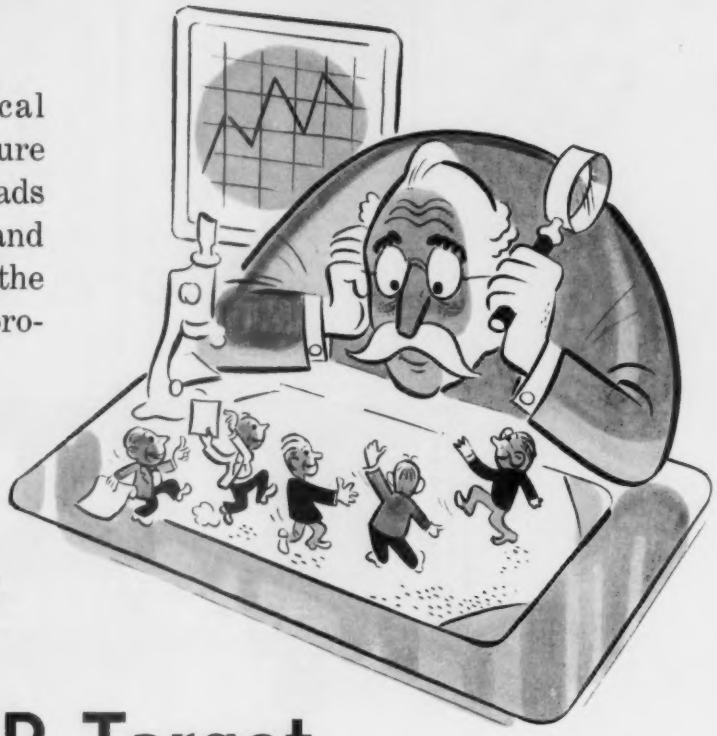
Get in touch with us and learn how Airslide cars can help you.



AIRSLIDE GENERAL AMERICAN TRADE MARK

GENERAL AMERICAN TRANSPORTATION CORPORATION
135 South LaSalle Street • Chicago 90, Illinois
Plants and offices in principal cities

The upcoming era of technological sleight-of-hand promises a bright future for American industry. Can the railroads keep apace? An observer raises and answers some urgent questions on the need for enlightened brain power programs.



"Head Hunting" a Prime RR Target

By George Daffern

The only "inherent, inalienable advantage in the competitive transport picture today is brains."

That was the recent observation of Major General E. C. R. Lasher, executive director of the U. S. Army's Military Management Traffic Agency. Taking a coldly objective look at the state of U. S. railroads, he commented that, while "the railroads have an abundance of this advantage, by no means do they have a corner for it."

If we in the railroad business accept General Lasher's points, the logical move is to insure full utilization of these brains. If we don't, it's likely that our competitors' brain power will leave the railroad industry trailing far behind and—to aggravate things more—the possessors of those railroad brains, are apt to seek opportunity in other organizations.

The evidence indicates there will be no abundance of brain power for *any* industry in the future. In a recently prepared study, scientists at California Institute of Technology pointed out that *the critical limiting factor in world production today is not material, energy or food, but brain power.*

One ominous sign in support of this theory is industry's almost frenzied search on university campuses for both technical and non-technical graduates; another is the widespread—and belated—efforts of industry and business to develop staff to take over the reins from an aging management. The full significance of the coming brain power shortage can be grasped if we take a look at the tremendous changes occurring in American life.

In our own "push-button" industry, we move trains electronically, we identify and route freight cars with electronic memories, we locate hot boxes with electronic thermometers, we allocate passenger space by TV, we use radio and radio telephones for rapid communication, we dispense with pole lines by microwave radio. And who knows how many electronic tricks are being hatched today to become tomorrow's railroad wonders?

What Will Railroads Do?

Pretty as the picture is, there are some important questions to be answered. Are railroads systematically planning to cope with new transportation problems in this vastly different, energy-packed age?

If we in the railroad industry fall behind the times, it's fairly predictable that we'll also fall behind our competitors. Are we deliberately planning to use that abundance of brain power General Lasher says we have? Bearing in mind the revolutionary changes that are coming, do we study the crystal ball, are we arranging for modifications in staffs as well as in equipment, property, even services? It seems doubtful. So far, for example, little action has been taken to inaugurate *retraining* programs for staffs whose skills are now outdated by such advances as dieselization and electronic computers.

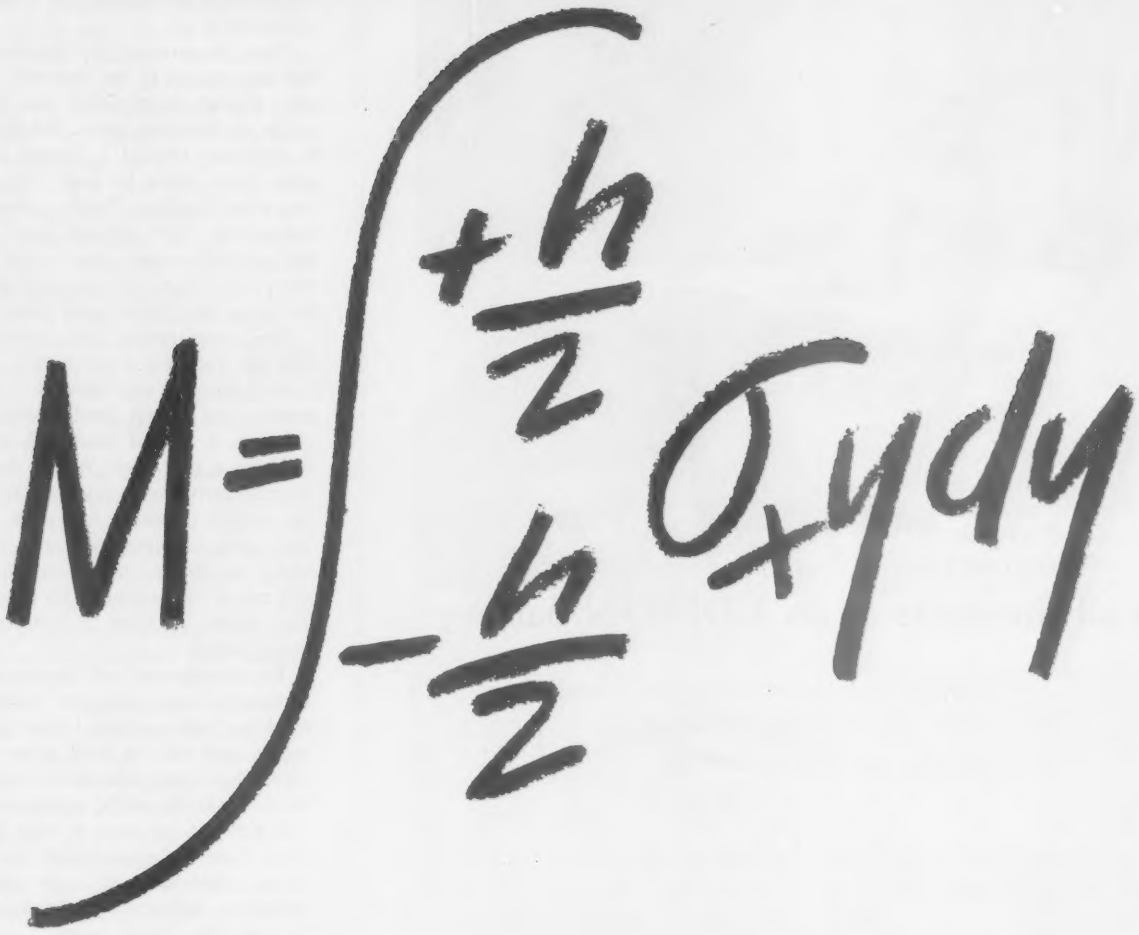
A university professor who had been studying our railroad organizations in the past few years wrote that the more he went from one organization to another the more he recalled the phrase "as it was in the beginning, is now and ever shall be." He claimed that railroaders in general seem to be far more interested in asking *how* a job should be done, rather than *if* it need be done.

There's a yard office that still displays this significant—and rather disquieting—sign: "Man must learn to endure patiently that which he cannot correct conveniently." It's a sad commentary on what we like to think of as rail progress.

This brings into focus General Lasher's warning about the railroads: "if they remain static, they die." From here on out personal endurance, patience and convenience have got to give way to personal

---

THE AUTHOR is research assistant, personnel department, Canadian National. A series of articles by him, entitled "The Better Supervisor Gets Promoted," appeared in Railway Age in 1956.



SOME MATERIALS JUST CAN'T TAKE THE STRAIN

It's a mathematical certainty. Some materials stand up under stress better than others. When it comes to flooring for freight cars, you just can't beat the long-lasting, rugged strength and protection of NAILABLE STEEL FLOORING.

N-S-F® is so strong it actually adds structural support to critical points in the underframe, can even outwear the car itself. Its smooth, skid-proof surface provides easier loading as well as safety for personnel. And don't forget, N-S-F has nailing grooves for surer, safer, easier blocking. No wonder shippers everywhere recognize N-S-F as a sure sign of a modern, efficient railroad.

NAILABLE STEEL FLOORING
Originated and sold by
STRAN-STEEL CORPORATION
Dept. K-39 • Detroit 29, Mich. • Division of
NATIONAL STEEL CORPORATION

N-S-F is a registered trademark of Stran-Steel Corporation.

Complete engineering and cost data available from our representatives in Chicago, New York, Philadelphia, St. Louis, Cleveland, San Francisco, Minneapolis and Atlanta. In Canada, N-S-F is made and sold by International Equipment Co., Ltd., Montreal.

Blistering Heat or Freezing Cold

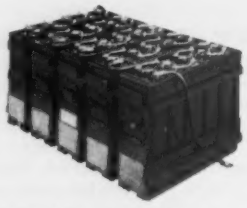
it's all the same to an EDISON battery

. . . and *now* new active material gives the world's longest-lived battery even greater durability and life

OVER THE YEARS . . . in every kind of weather, in the widest temperature extremes . . . EDISON storage batteries have offered stand-by power unmatched in economy and dependability by any other battery made.

Today, EDISON storage batteries offer *even greater durability* and longer life through the use of a new active material. Developed by Edison research to meet the increasing demands of today's lighting and air-conditioning loads, this new material—on long-term tests—has shown it can provide new durability and economy under the full range of passenger car operating conditions.

For information on EDISON storage batteries contact your local Edison representative, or write Edison Storage Battery Division, Thomas A. Edison Industries, West Orange, N. J. In Canada: International Equipment Co., Ltd., 90 Bates Road, Montreal, P. Q.



Railroads depend on Edison batteries for five important power services

—operating power on industrial trucks • stand-by power for communications equipment on caboose cars • stand-by power for air conditioning and lighting on passenger train cars • stand-by power for all types of railway signaling • multiple unit controls.

Edison NICKEL–IRON –ALKALINE Storage Batteries

. . . a product of Thomas A. Edison Industries of McGRAW EDISON

imagination, innovation and a keen sense of urgency.

From the moment it is installed, a new machine begins to be "old-hat" and only alert human brain power can keep railroads on their toes today. Southern Pacific President Donald J. Russell made the point clear when he said: "Suppose we converted Southern Pacific completely to automation. Our railroad would run itself smoothly—and grow more obsolete every day. None of these new marvels—not even the 'brain'—can think."

The approaching electronics-automation age calls for a completely new concept of industry and business, a new philosophy and a new methodology. It will come as a second industrial revolution, but with a difference. Where the first industrial revolution tended to dehumanize the worker (someone had to do the donkey work in mine, mill and shop and along the railroad track) the second one will return the human to his proper plane. The ability to *think* will be needed as never before.

Top management will have to plan each company's future as never before. Future markets, future capital, future equipment, future staff will be their prime concern, while day-to-day operations will have to be the tasks of middle managements.

If this is a fair taste of what the future holds, how can management best tap this alleged abundance of brain power? For one thing, perhaps it would help to realize that the "hand wanted" concept of early railroading should be changed to a "brains wanted" concept.

Top managements are asking some leading questions about their organization's future. What services can we provide most successfully five, ten, twenty years from now? What services can we provide better than our competitors can?

Creative answers to such questions can help establish the blueprint for a railroad's successful future. Will the new age call for the present-day functional type of organization or will it be outdated? Will smaller, highly integrated units of railroad operation be more adequate? How will they be staffed and with how many people and with what skills? How about finance, property, equipment?

In the realm of management and supervision, how can a "thinking" and more highly efficient staff be properly managed? Since an intelligent staff will call for an intelligent management, how can the entire organization be best led into a proper sense of urgency, eagerness and confidence to face the future? In appraising the future, top management might well consider:

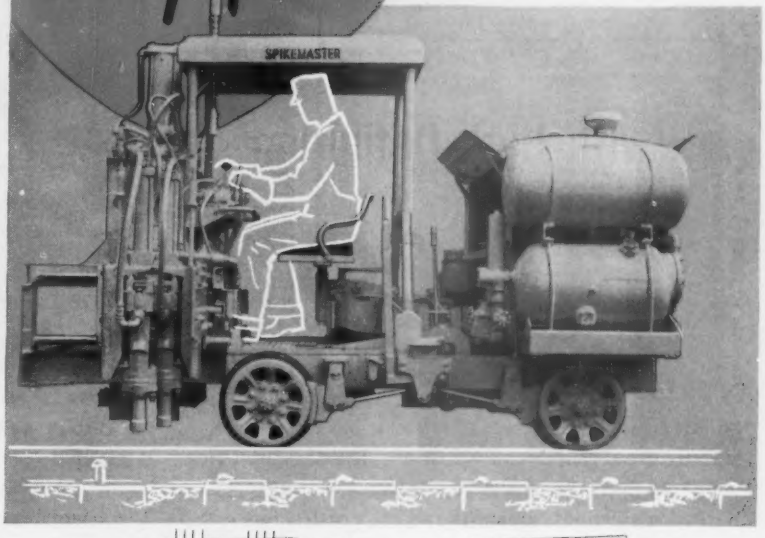
• Allocation of far greater funds than hitherto for staff education and training, including grants for educational institutions and funds for in-plant training.

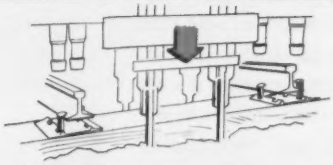
- Raising incentives and rewards to attract and hold the necessary skilled people. Nearly a century ago, Charles E. Perkins, president of the Chicago, Burlington & Quincy, said: "Officials dislike to have to ask for more pay even when they feel they ought to get it, but inasmuch as they will sooner or later either ask for it, or accept it elsewhere, it is a good policy for the company to take the initiative." And despite present-day pensions, health protection, and other rewards that tend to hold staffs, the dissatisfied, younger, more capable employee still often wants to leave.
- Establishing procedures for locating hidden talents. There are talents in all staffs, and it will be the supervisor's responsibility in the future to match the job to the talent.
- Working on the sound premise that imagination, creativeness and intelligent thinking go hand in hand with *individuality* and not with *conformity* and *bureaucracy*. It was Col. Lyndall Urwick who said recently: "Reducing most of its operations to a routine is inviting the greatest hazard of all enterprise: fatty degeneration of initiative."
- Permitting subordinates plenty of freedom to experiment and innovate; encouraging them to stick out their necks without fear of heads rolling when the inevitable mistakes are made.
- Delegation of authority and responsibility to the lowest possible level. David E. Lilienthal has said: "A centralized agency, remote from the field of operation, lays a deadening hand upon its officers 'on the line' by relieving them of the responsibility for significant decisions. In the interests of standardized practice and accountability in detail, the national headquarters is driven to insist that all important problems, and many that are not so important, be referred up the heirarchy, 'through channels,' for action. The consequences of this procedure are well known: delays when action is contemplated and the stifling of initiative in the face of a justified fear of being pitted against the resistance of the bureaucracy."
- Encouraging each staff member to think for himself and, of course, for the organization as well. Otherwise, imagination and brain power are being paid for without being used.
- Making sure that organizations function with a real team spirit. Men don't develop in isolation and in an atmosphere of conflict: systematic means of uninhibited communication among all staff levels and different departments acts to prevent any feeling of remoteness. *The rank and file must be kept fully informed of technological changes present and pending, and their ideas sought about such things.*

HOW TO DRIVE SPIKES
AT SPEEDS OF
6 ties per minute

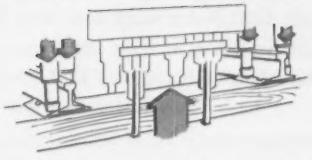
R·M·C
SPIKE*Master*

SpikeMaster will produce dramatic cost reductions in both tie replacement and rail renewal operations. Machine will drive four spikes simultaneously —one on either side of both rails—or guns can be operated individually in non-uniform track conditions. Adjustable for all tie plate punching. *Bulletin S-55.*





In tie replacement operations nipping tongs are lowered to engage tie and raise it square with the rails.

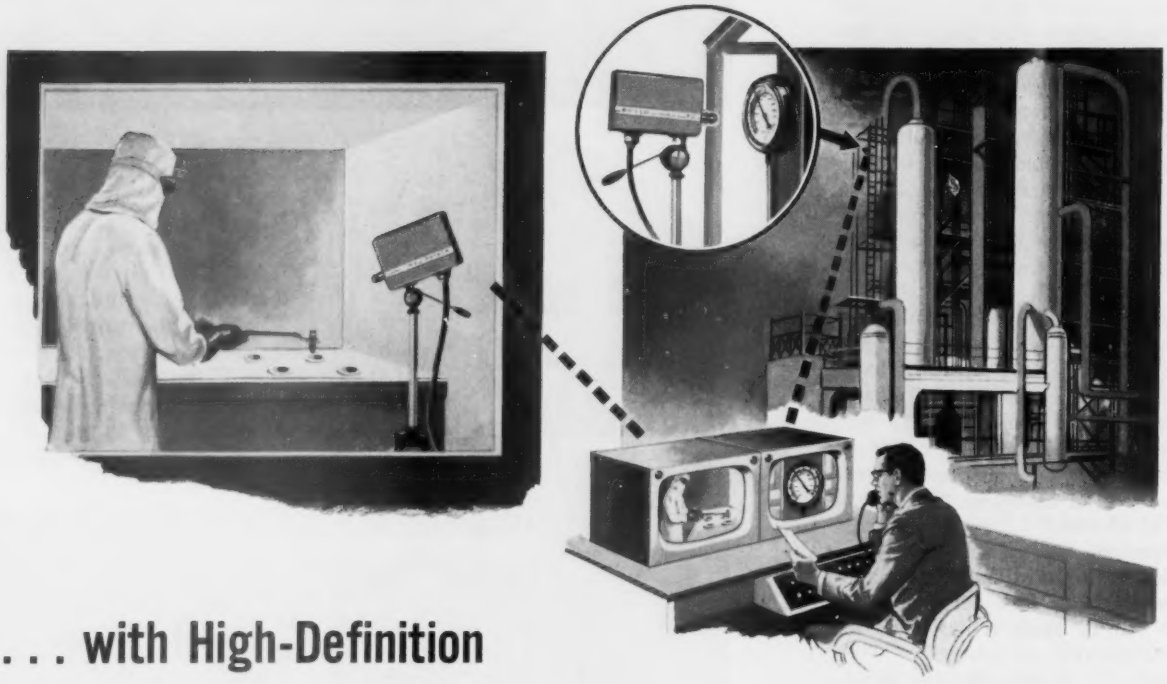


With nipping tongs holding tie, driving guns drive spikes individually or four at a time.

Railway Maintenance Corporation
Pittsburgh 30, Pa.

McWilliams Mole
Super Mole
McWilliams Tie Tamper
Crib Cleaner
Ballast Distributor
TieMaster
LineMaster
SpikeMaster
Tie Unloader
BallMaster

View remote or hazardous areas with *SAFETY and ECONOMY*



. . . with High-Definition

PHILCO *Industrial TV*

See where *you* can't be—Now you can maintain constant watch on as many different critical locations as necessary . . . inconvenient gauges and operations, hazards . . . all from one convenient, central control point.

Philco's picture brilliance and accuracy of detail are unsurpassed. Details are sharp and clear. You can actually read gauges and dials at light levels as low as 10 foot candles.

Philco's complete line of ITV accessories extends the use of your basic system and permits maximum flexibility. Remote pan and tilt . . . remote iris and focus . . . Auto-Zoom lenses . . . lens turrets . . . weatherproof housings . . . explosion resistant housings . . . all assure complete versatility and adaptability to any installation through Philco's "building block" techniques.

Your Philco ITV installation gives guaranteed performance because it is a *systems designed* installation . . . "custom-made" by our highly skilled systems engineering group to suit your specific requirements. And, Philco Industrial TV requires very little power . . . total power consumption for an entire system is actually lower than that required to operate a household iron.

For economical and efficient remote visual control . . . specify Philco ITV.

Send for illustrated brochure, describing complete Philco ITV equipment and systems.

At Philco, opportunities are unlimited in electronic and mechanical research and engineering.

PHILCO® Government and Industrial Division, Philadelphia 44, Pennsylvania

In Canada: Philco Corporation of Canada Limited, Don Mills, Ontario

Sperry

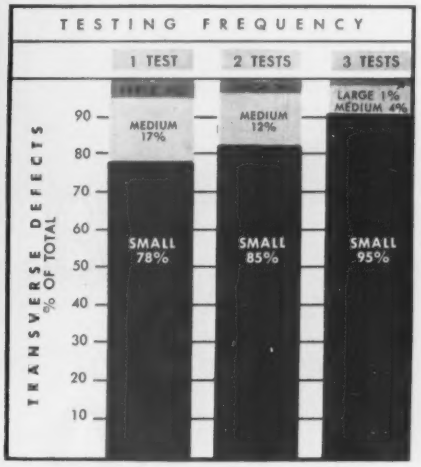
HELPING TO KEEP YOUR RAIL SAFE

HOW SPERRY RAIL SERVICE FINDS RAIL DEFECTS WHILE THEY ARE STILL SMALL

The ability to detect small defects is a realistic yardstick of the effectiveness and value of any rail inspection program. Three basic factors directly affect the detection ratio of small to large defects.

Equipment is the first factor, and Sperry Detector Cars are the most advanced rail inspection units yet developed. They are kept so by a continuous research program which has produced improvement after improvement for more than 30 years. That is why Sperry Detector Cars are capable of finding defects of various types such as the detail fracture illustrated.

Experienced personnel, the second factor, is vitally important to achieve most effective utilization of inspection equipment. Sperry Detector Car operators are highly trained and experienced in the techniques of rail inspection and the recognition of every kind of defect yet discovered. They are aware, too, of the great responsibilities of their job.



Frequency of inspection, the final factor, adds further to the reduction in size of rail defect detected. The chart emphasizes graphically the importance of Sperry testing at regular and frequent intervals.

Maintenance-of-Way Departments know that in finding any kind of defect in rail, "the smaller, the safer" is always true. That is why Sperry Rail testing is an integral part of the safety program of America's foremost railroads.

Sperry

SPERRY RAIL SERVICE

Division of Sperry Products, Inc. • Danbury, Connecticut

FIRST IN RAIL TESTING

New York, N.Y., 60 East 42nd St. • Chicago, Ill., 80 East Jackson Blvd. • St. Louis, Mo., 818 Olive St.

Sperry

BARBER STABILIZED TRUCKS

are easier to service

STANDARD CAR TRUCK COMPANY, 332 S. Michigan Ave., Chicago 4, Illinois.
In Canada: Consolidated Equipment Co., Ltd., Montreal 2.

Defy Main-Line Traffic vibration with tough, durable Transite Pipe

Ring-Tite's rubber sealing rings are compressed and locked securely into position. This provides lasting tightness and resiliency . . . prevents leakage with its danger of undermining the pipe bedding.

Transite asbestos-cement Pipe is quickly and easily assembled.

. . . and its tight, flexible Ring-Tite Coupling

THE combination of Transite® Pressure Pipe and Ring-Tite® Couplings give lasting durability under rugged conditions, even where shock and vibration are a problem.

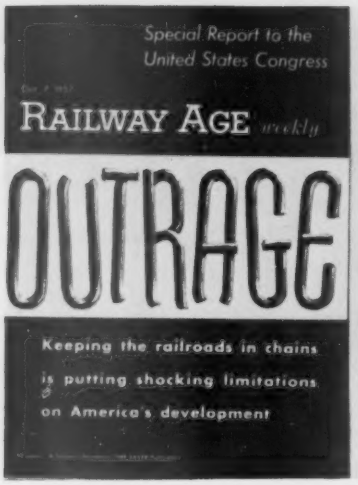
Railroads specify Transite for its low installation cost, low operating cost, and low maintenance cost. Quick assembly of sections with Ring-Tite Couplings gets more pipe laid per day. Deflections up to 5° at each joint permit laying pipe around curves without special fittings. Full flow capacity is always maintained by the smooth interior and resistance to corrosion of Transite . . . keeping pumping costs low.

For further information on how to save money with Transite Pressure Pipe and Ring-Tite Couplings, send for Booklet TR160-A. Write to Johns-Manville, Box 14, New York 16, N. Y. In Canada, Port Credit, Ontario.

JOHNS-MANVILLE PRODUCTS

Johns-Manville TRANSITE PRESSURE PIPE
WITH THE RING-TITE® COUPLING

Here's What "Outrage" Looked Like . . .


Special Report to the United States Congress
RAILWAY AGE weekly
OUTRAGE
Keeping the railroads in chains is putting shocking limitations on America's development

OUTRAGE:
Who's kidding whom . . .
. . . that trucks, cars, and buses could carry the full load
Trains have been, are, and must continue to be the backbone foundation on which America is built
The last war gave us a good look at the basic importance of trains. With autos rationed, gasoline rationed, tires rationed, where would we have been without our trains?
Yet the railroads today are being choked to death by inequalities and an archaic system of regulation established in the last century. If this strangulation of our "low cost mass transportation carrier" continues, what will be the future of our cities, our highways, our defense, our ability to compete for world markets?
Just see how desperate the railroad situation really is

. . . And Here's What Readers Are Saying

"Excellent Approach"

PHILADELPHIA

TO THE EDITOR:

Your approach is excellent. It should be a report, not only to Congress, but to all of our citizens, railroaders and others alike, because certainly the progress of this nation's railroads is an integral part of the overall progress of our country. Railroads are a service industry, but they are also a *growth* industry, and, very definitely, "growth" is dependent on the economic atmosphere in which we are forced to operate. "Outrage" clearly points to the need for immediate and drastic change in the economic conditions under which the railroads are forced to fight for existence against competition that is being given the "aces" prior to the deal.

T. F. SCHAEKEL
Manager Freight Train Operations
Pennsylvania

In 42,000 "Ties"

WASHINGTON, D. C.

TO THE EDITOR:

We are delighted to have your permission to use the "Outrage" material and will run it as a section in our November issue of *Ties*.

B. E. YOUNG
Assistant to the President
Southern

Ties goes to about 42,000 Southern officers and employees.—EDITOR

"Some Criticisms"

LOUISVILLE, KY.

TO THE EDITOR:

It is one of the most striking and forceful presentations of railroad problems I have ever seen. It is powerful and timely, but I do have some criticisms of it.

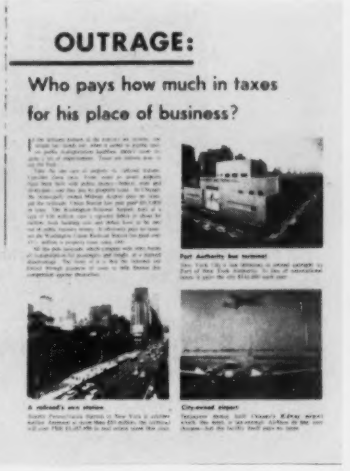
I would certainly not place first in a program to provide needed relief legislation to give us greater freedom in price-fixing. I think the railroads have overemphasized this subject, placed the emphasis in the wrong places and made a serious mistake in their attack upon the Interstate Commerce Commission.

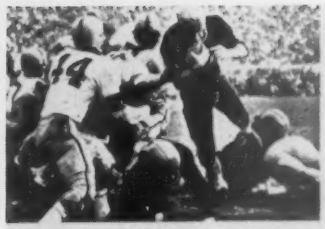
I agree that the Interstate Commerce Act is in need of drastic revision: What is needed is an act equally applicable to all forms of transportation covered thereby and not one in four parts, as we have today, which is in that form for the very purpose of making regulation unequal even though the national transportation policy which precedes it piously declares it aims to provide "fair and impartial regulation of all modes of transportation subject to the provisions of this act."

Our greatest trouble in the area of lack of freedom to compete is the exemption provisions, particularly those in Parts II and III of the act, with no exemption in Part I.

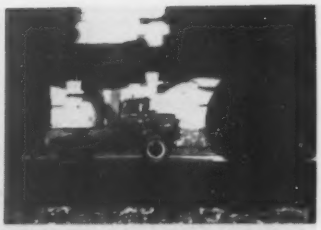
On the subject of exemptions, I think we should urge either their elimination from the act insofar as they apply to other forms of carriage or their extension to the railroads.

It is true we have some decisions of the commission which have exercised restraints upon our price-fixing ability that should not have been imposed, but such has not been the general rule, at least in the experience of this company, and we have today what I consider to be an intel-

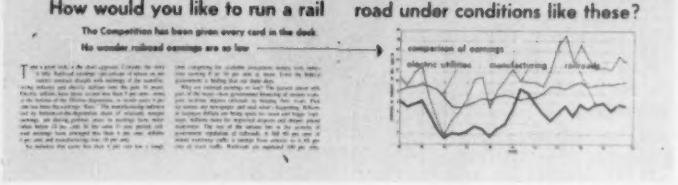




Americans would see red if a team



had to compete as railroads do


How would you like to run a rail road under conditions like these?
The Competition has been given every card in the deck
No wonder railroad earnings are so low
comparison of earnings
electric utilities
manufacturing
railroads

ligent, capable and relatively new commission which is disposed to do what is right, I am persuaded, in all situations. Railroads in my opinion would do much better to endeavor to convince the commissioners of the correctness of their position rather than constantly to assail them for what very largely have been the sins of their predecessors.

Again I repeat the issue is a strong and striking one but I do feel you would do well to think seriously about the views I have herein advanced.

W. L. GRUBBS
Vice-President and General Counsel
Louisville & Nashville

"Effective"

CLEVELAND, OHIO

TO THE EDITOR:

CONGRATULATIONS ON YOUR "OUTRAGE" ISSUE WHICH MAKES A FORCEFUL AND EFFECTIVE CONTRIBUTION TOWARD BETTER UNDERSTANDING OF THE BARRIERS CONFRONTING RAILROADS IN CARRYING OUT THEIR PLANS FOR GREATER PROGRESS AND SERVICE TO AMERICA'S INDUSTRIAL ECONOMY.

GEORGE C. FRANK
Assistant to President
Erie

"Widespread Benefit"

NORFOLK, VA.

TO THE EDITOR:

I was delighted to see in the October 7 issue so fine a presentation of the situation in which the rail carriers now find themselves. The simplicity and force with which you have presented the facts of this situation will, I am sure, be of widespread benefit in pointing up these vital issues to those who may not be too well informed on this important subject. More power to you in this worthwhile undertaking!

W. E. RACHELS
Assistant Vice-President
Seaboard Air Line

"A Masterpiece"

PHILADELPHIA

TO THE EDITOR:

The October 7 "Special Report to the United States Congress," is a masterpiece!

You have really done an excellent job, in 3-A tune; namely, you have been on the "Alert"; you have "Anticipated"; and you have taken the necessary "Action" in putting it into print.

Certainly, everyone dedicated to our industry (such as are our officers and employees) can point with pride to the excellent presentation relative to the issues which we are facing in our industry—and which you have so clearly outlined.

E. P. GANGEWERE
Vice-President
Reading

"Mail to Editors"

ST. PAUL, MINN.

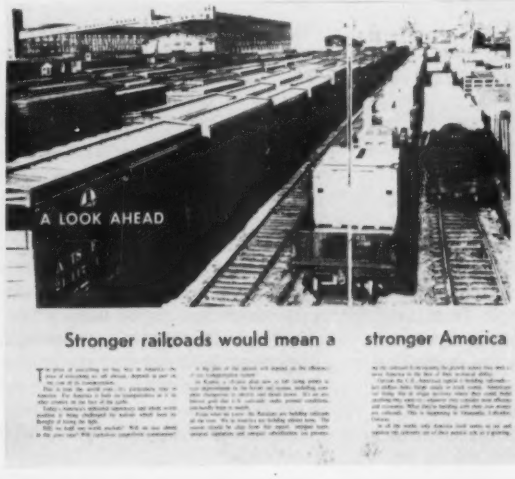
TO THE EDITOR:

JUST HAVE SEEN ADVANCE PROOF OF OCTOBER 7 ISSUE AND THINK IT MOST EFFECTIVELY HANDLED. SUGGEST CONSIDERATION OF SPECIAL MAILING OF REPRINT TO EDITORS ALL UNITED STATES DAILIES AND FARM PUBLICATIONS.

CHARLES W. MOORE
Executive Assistant
Great Northern

A preprint of the "Outrage" pages was mailed to editors of approximately 600 U.S. daily newspapers.—EDITOR

OUTRAGE:
Even where the government itself owns the railroads
They're finding they need more freedom in rate making
Nowhere in the world are railroads so restricted as they are in the United States



(Continued from page 16)

provinces, as was the case with the class rates.

Items of traffic just ordered equalized for commodity rates, representing only a fraction of the total movement under this type of rate, include: building brick, sand, gravel, crushed stone, clay, slag, gypsum rock, scrap iron and scrap steel. Still to be dealt with are rates on coal, grain and grain products for domestic consumption, lumber, pulpwood, and paper articles.

Boards Forecast 4th Qtr. Loadings

A decrease of 2.1% in the number of cars loaded with revenue freight in the fourth quarter of 1957 compared with the same period in 1956 has been estimated by the 13 regional Shippers Advisory Boards.

On the basis of the estimate, loadings of the 32 principal commodities will be approximately 7,450,797 cars, compared with 7,611,295 cars in the fourth quarter of last year.

Two boards predicted increases in the fourth period this year over the same period last year, while 11 boards estimated reductions.

The accompanying tabulation shows actual loadings for each district in the fourth quarter of 1956, the estimated carloadings for the fourth quarter of 1957, and percentage of change.

Shippers Advisory Boards	Actual Loadings Fourth Quarter, 1956	Estimated Loadings Fourth Quarter, 1957	Percent
New England	116,182	112,008	3.6 dec.
Atlantic States	772,218	764,889	0.9 dec.
Allegheny	884,052	868,024	1.8 dec.
Ohio Valley	1,072,411	1,092,765	1.9 inc.
Southeast	909,891	905,572	0.5 dec.
Great Lakes	530,545	516,998	2.6 dec.
Central Western	281,194	277,685	1.2 dec.
Mid-West	884,060	862,617	2.4 dec.
Northwest	615,825	553,226	10.2 dec.
Trans-Missouri-Kansas	345,023	330,954	4.1 dec.
Southwest	521,665	525,333	0.7 inc.
Pacific Coast	411,045	338,701	5.4 dec.
Pacific Northwest	267,184	252,025	5.7 dec.
TOTAL	7,611,295	7,450,797	2.1 dec.

RPI Wins Award

The Railway Progress Institute has been granted the American Society of Association Executives "Award of Merit" for "outstanding service to the industry which it represents as well as to the American people." RPI President Holcombe Parkes (right), and Vice-President Thompson A. Nooner (left), accepted the award plaque from the Very Rev. Paul C. Reinert, president of St. Louis University and one of the award jurors.

Railroading After Hours with Jim Lyne

RETREADS—On the perennial subject of railroad officers going back to school for weeks or even months of education in management problems, Cliff Massoth of the IC has shown me a piece he had in Northwestern University's "Commerce Magazine" a few months ago. It tells about N.W.'s course for business executives (sometimes called "retreads" by the regular students). Cliff says IC has had 9 of its officers in the N.W. course, so far; and about a dozen other railroads have been represented.

All of these schools that I've seen seem to be offering something very useful to the executives who attend them. Some of the courses study "cases" taken from railroad experience—and, hence, provide instruction with specific application to railroading, not limited to general management principles.

The only criticism I've ever heard from any one who has attended such courses (and this certainly doesn't apply to most of them) is that the instruction is too elementary. This observation, however, couldn't be made of any of which I have first-hand knowledge.

PROF A STUDENT BRAKEMAN—Gayton Germane—who teaches transportation at Stanford University's graduate school of business—decided to get himself some grass-roots railroad experience. The decision came at one of the sessions of the Transportation Management Program, which Stanford runs for supervisory people from all types of transportation. SP Trainmaster Richard Spence offered to take the professor on as a student brakeman—nobody to know that he was in any way "special."

The SP people, he tells me, gave him a real work-out. After receiving instruction in the timetable, book of rules, signals, and how to handle himself around moving cars—he sat in on an accident investigation. Thereafter he worked both day and night turns on a local freight, day and night in a freight yard, two runs on high-speed freight trains, with a good look at a rip-track included. "I am proud of the fact," he says, "that each of the conductors for whom I worked turned in a favorable report on me."

ENTHUSIASTIC EMPLOYEES—"The thing which impressed me most," he reports, "was that crews working for Trainmaster Dick Spence apparently consider perfection a reasonable and attainable standard of performance. I was surprised to hear the way men were 'chewed out' by their fellows if they dropped off a car at the wrong place in switching, or were slow in coupling cars. But they were patient with the mistakes I made as a learner.

"After that tour of duty," he concludes, "it isn't hard to see how railroading can get into your blood."

FRIENDLY APOLOGIES—A passenger on an early morning-arrival B&O train tells me that, one day when the train was a little late, passengers were served a complimentary glass of orange juice and coffee, with the company's apologies.

Dinty Moore of the GN has shown me an apologizing poster his company hung in an "old-timer" (but comfortable) lounge car, which had to be used while the regular equipment was in the shop. The explanation worked, too; no complaints from any passenger, and several complimentary letters.

I cite these merely as more evidence that railroads are not any less alert than the airlines in making explanations and polite amends to passengers, whenever service isn't up to usual standards.

Freight houses, maintenance shops, service buildings of all types go up faster at lower cost when you build with Alcoa® Aluminum. Sandwich walls, using Alcoa Aluminum to sheathe a one-inch layer of glass fiber, can be erected for as little as $1.50 per square foot. Yet they provide three times the insulating efficiency of eight-inch masonry!

They save money in other ways, too. Lightweight sandwich walls permit lighter, less costly foundations and framing, take less manpower and equipment to erect. Expensive painting and maintenance are eliminated because aluminum never rusts, never rots. It defies steam, smoke and industrial fumes, can be salvaged after years of use for remodeling or relocation.

Corrugated and V-beam roofing sheet of Alcoa Aluminum are available for *every* type of building, and their corrosion resistance insures long life under severest conditions. Sandwich wall techniques suggest another way to greater savings on roofing, especially on buildings of pitched roof design.

Progressive railroaders are using more and more light, strong, rustproof Alcoa Aluminum—for new lightweight trains, tank cars, boxcar and baggage car doors, crossbucks and wayside signs, freight and passenger stations. Get more information. Write: Aluminum Company of America, 2180-K Alcoa Building, Pittsburgh 19, Pennsylvania.

Write for free literature: Sandwich Walls of Alcoa Aluminum.

WE CHOSE ALCOA ALUMINUM BUILDING PRODUCTS

YOUR GUIDE TO THE BEST IN ALUMINUM VALUE

NEW! "ALCOA THEATRE" Exciting Adventure Alternate Monday Evenings

GEARED TO PROGRESS RI MEMBER

WABCO® Packing Cups take the punch and bounce back

The ability of Wabco composition to bounce back and regain its original contour after deflection has made it amazingly successful in air brake packing cups, as well as seals and gaskets. It is this unmatched resiliency that has reduced brake system leakage to a previously unattainable minimum. It made it possible to extend maintenance intervals because of the longer service life.

To maintain top performance, be sure to use genuine Wabco parts. Specify them by name. Each Wabco Packing Cup carries the trade-mark, date of manufacture, mold number and piece number. Thus you can order and get the same high-quality parts time after time.

Westinghouse Air Brake
COMPANY
AIR BRAKE DIVISION WILMERDING, PENNA.

WABCO Dated Packing Cups

MARKET OUTLOOK *at a glance*

Loadings 1.1% Above Preceding Week's

Loadings of revenue freight in the week ended October 5 totaled 747,647 cars, the Association of American Railroads announced on October 10. This was an increase of 8,381 cars, or 1.1%, compared with the previous week; a decrease of 67,546 cars, or 8.3%, compared with the corresponding week last year; and a decrease of 53,912 cars, or 6.7%, compared with the equivalent 1955 week.

Loadings of revenue freight for the week ended September 28 totaled 739,266 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, September 28

District	1957	1956	1955
Eastern	111,199	133,106	125,824
Allegheny	144,647	158,097	158,385
Pocahontas	64,133	64,975	62,714
Southern	122,679	131,776	130,485
Northwestern	119,649	143,507	145,636
Central Western	125,616	137,122	131,603
Southwestern	51,343	63,065	60,888
Total Western Districts	296,608	343,694	338,127
Total All Roads	739,266	831,648	815,535
Commodities:			
Grain and grain products	50,043	58,295	55,766
Livestock	9,315	13,342	12,461
Coal	141,973	145,656	134,904
Coke	10,096	12,266	13,272
Forest Products	37,820	44,160	47,386
Ore	81,032	91,806	86,457
Merchandise l.c.l.	57,002	63,101	66,636
Miscellaneous	351,985	403,022	398,653
September 28	739,266	831,648	815,535
September 21	724,934	822,436	813,720
September 14	741,147	820,849	817,234
September 7	646,118	679,651	701,992
August 31	745,183	784,366	789,722
Cumulative total, 39 weeks	27,136,211	28,180,130	27,927,372

IN CANADA.—Carloadings for the seven-day period ended September 21 totaled 87,938 cars, compared with 87,285 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
September 21, 1957	87,938	30,559
September 21, 1956	96,305	34,000
Cumulative Totals:		
September 21, 1957	2,938,224	1,206,057
September 21, 1956	3,203,647	1,264,361

New Equipment

FREIGHT-TRAIN CARS

► *Freight Car Ownership at New High.*—Freight car ownership of Class I roads on September 1 was 30,465 cars ahead of total ownership on same date last year, AAR report summarized below shows; repair ratio was 5%, up 0.1% since August 1 of this year.

	Sept. 1, 1957	Sept. 1, 1956	Change
Car Ownership	1,734,541	1,704,076	+30,465
Waiting Repairs	86,008	74,305	+ 1,703
Repair Ratio	5.0%	4.4%	+ 0.6%

► *Long Island.*—Ordered 6 steel cabooses, International Railway Car, for March 1958 delivery; total cost, $82,050; specially designed with cooperation of Brotherhood of Railway Trainmen for Long Island's operations, cars will have neither bay windows nor cupolas, but will have two walk-over passenger-type seats inside at windows.

► *Minneapolis & St. Louis.*—Ordered 50 covered hopper cars, Pullman-Standard, for delivery in April 1958; also ordered its first two Evans DF box cars, Pullman-Standard, to be delivered in January 1958; road has announced it will soon begin installation of Evans DF equipment at its Marshalltown, Iowa, shops.

► *Union Pacific*—Ordered 525 50-ton box cars, Pullman-Standard.

► *Wilson Car Lines.*—Ordered 200 40-ton refrigerator cars, Pacific Car & Foundry, for delivery first quarter 1958; unit cost $14,000.

LOCOMOTIVES

► *Northern Pacific.*—Ordered 30 diesel locomotive units for delivery during first half of 1958, at approximate cost of $4,730,000; order includes 13 1,750-hp road switchers and 15 1,200-hp switchers from Electro-Motive Division of General Motors; and two 1,800-hp road switchers from Alco Products; road contemplates placing orders later this year for similar number of units for delivery during second half of 1958.

► *Steam Fleet Now Under 3,000.*—Class I roads owned just 2,919 steam locomotives on September 1, compared with 4,343 on the same date a year ago, AAR reports; diesel ownership was up 1,159 units in the same period.

	Owned or Leased September 1		Stored Serviceable September 1		Waiting Shop September 1	
	1957	1956	1957	1956	1957	1956
Diesel (Units)	26,996	25,837	96	41	959	796
Steam (Locomotives)	2,919	4,343	779	518	509	721
Electric (Units)	606	601	16	10	63	69

New Facilities

► *Western Pacific.*—Road is constructing approximately six miles of track to serve a new dolomite plant near Delle, Utah; project will include 2,165-ft double-end siding, 2,170-ft wye track and spur tracks to newly-established station, Marblehead; work started in June and is expected to be completed in late 1957, although operation of plant is not scheduled to begin before June, 1958; estimated cost of project is $375,000.

a RAILWAY AGE time-saver page

SP Pipe Line Progresses Through Rough Country

Southern Pacific's aviation fuel pipe line snakes its way across rough country between Richmond, Calif., and Fallon, Nev. The line (6 in. in flatlands to Colfax, 8 in. in mountainous country) is being laid 42 in. deep in dirt, 24 in. deep in rock, 60 in. deep near the railroad and 144 in. deep near highways. The photograph shows a Gardner-Denver twin drill suspended from the sideboom of a Caterpillar MD7 tractor, opening trench for the line through granite.

August Net Was $81 Million

Class I railroads in August had estimated net income, after interest and rentals, of $81 million—down $7 million from the $88 million reported for August 1956.

The latest statement from the AAR's Bureau of Railway Economics also shows that the August net railway operating income, before interest and rentals, was down nearly $7 1/3 million—from $103,758,629 to $96,438,894.

For this year's first eight months the estimated net income was off $60 million —$474 million compared with $534 million last year. Net railway operating income for the seven months was $615,229,126, compared with $677,038,317, a decrease of $61.8 million.

Nineteen Class I roads failed to earn interest and rentals in this year's first eight months. Rate of return for the 12 months ended with August was 3.68%, compared with 3.99% for the previous 12 months.

CLASS I RAILROADS — UNITED STATES

	1957	1956
Month of August		
Total operating revenues	$ 929,898,462	$ 906,850,468
Total operating expenses	701,304,043	679,224,136
Operating ratio — per cent	75.42	74.90
Taxes	108,701,965	102,259,549
Net railway operating income (Earnings before charges)	96,438,894	103,758,629
Net income, after charges (estimated)	81,000,000	88,000,000
Eight Months ended August		
Total operating revenues	7,036,382,711	6,950,408,794
Total operating expenses	5,507,215,070	5,370,373,130
Operating ratio — per cent	78.27	77.27
Taxes	735,814,136	731,061,595
Net railway operating income (Earnings before charges)	615,229,126	677,039,317
Net income, after charges (estimated)	474,000,000	534,000,000

Six Roads Sue Claims Lawyer

Six railroads entering Pittsburgh, Pa., have brought suit in a state court to enjoin a Pittsburgh attorney, James P. McArdle, from "solicitation and maintenance" in connection with railroad cases brought under the Federal Employer's Liability and Safety Appliance acts. Attorney McArdle, meantime, has brought suit in federal court, seeking to restrain the railroads from interviewing his clients.

Railroads involved in the litigation are the Aliquippa & Southern, Monongahela, Monongahela Connecting, Pennsylvania, Pittsburgh & Lake Erie, and the Union.

The federal judge before whom Mr. McArdle brought his suit suggested that the railroads' assertions regarding the attorney's conduct be referred to the grievance committee of the bar of the local federal court; and that the attorney's contention, that the railroads were obstructing justice by harassing his clients, be investigated by the U.S. district attorney. All concerned agreed to this handling.

The judge said that, aside from the alleged harassment of clients, the controversy centered around three practices, the propriety of which should be resolved:

(1) Is it proper for an attorney to maintain clients by loans during litigation?; (2) Is it proper for an attorney to pay per-diem and expenses to an agent to seek clients?; and (3) Is it proper for an attorney to pay costs of litigation, other than record costs?

Supply Trade

Edward O. Boshell has resigned as chairman of the board of **Westinghouse Air Brake Company.** He is opening an office in the Radio City area of New York, where he will act as a consultant to management, with special reference to the utility field.

Clarence W. Higbee has been apponted assistant general manager and **Gillette N. Houck** has been named sales manager of the newly established **Electrical Conductor Division, Kaiser Aluminum & Chemical Corp.** The following regional sales managers for the division appointed: **J. W. Loveland,** northeastern region, New York; **W. J. Lawrence,** southeastern region, Philadelphia; **H. B. Stauffer,** Great Lakes region, Cleveland; **J. G. Johnson,** north central region, Chicago; **E. K. Matteson,** south central region, Kansas City; and **L. M. Guibara,** western region, Los Angeles.

Nelson Thompson, vice-president, sales, of **Homelite,** a division of **Textron, Inc.,** since 1941, has been appointed to the newly created position of executive vice-president.

Edwin T. Goree has been promoted from assistant sales manager, excavator distributors, **Bucyrus-Erie Company,** to assistant general sales manager.

John D. Kleis has been appointed vice-president and director of research, **Fansteel Metallurgical Corporation,** with headquarters at North Chicago, Ill.

R. J. Burkart, traffic manager, **Sparton Radio and Electronics Division, Sparton Corporation,** has been appointed director of education and demonstrations, **Tri-Belt Division. W. Bradley Gilkey,** formerly sales engineer, **Evans Products Company,** has been named western sales manager and special representative, **Tri-Belt Division,** in charge of sales and service to western railroads

Roy A. Slettevold has joined **Safety Industries, Inc.,** as sales representative, at St. Louis. He was previously a sales engineer for **Thomas A. Edison Storage Battery Division** in Chicago.

Shell Oil Company has opened a new regional railway sales office in Chicago, enlarging the territory formerly handled out of the St. Louis office. **L. L. Butcher,** formerly regional manager of the railway sales office there, is regional manager in charge of the new office, and is assisted by **J. C. Kleber** and **Edgar R. Shutz,** formerly of St. Louis.

Robert C. Long, formerly Cleveland district superintendent of **Lamson Corporation,** has been appointed New York regional manager, responsible for sales and engineering in the New York, Philadelphia and Baltimore districts.

OBITUARY

Arthur A. Logmann, 64, manager of works, **Pullman-Standard Car Manufacturing Company,** died October 7 in St. Anthony's Hospital, Michigan City, Ind.

William J. Pallowick, 65, railroad representative for the **Chicago Pneumatic Tool Company,** died in Chicago September 22.

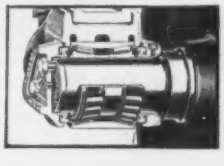
TIMKEN®

"I wasn't joking about roller bearings," says Boston and Maine's McGinnis

"WE meant business when we started to put our freight cars on Timken bearings, started to go 'Roller Freight'. I look at it this way," says Patrick McGinnis, President of the Boston and Maine. "These Timken bearing-equipped cars save money for whoever operates them. We save when they're on our line. We save when they're on other lines too. And we save money every time another road sends its 'Roller Freight' cars on our lines. Sharing these cars through interchange is the kind of teamwork that's made our railroads great. And it's the only way we can stop the costly hot box problem."

Switching from friction bearings to Timken® tapered roller bearings eliminates the *cause* of the hot box problem, instead of just providing another "crutch" device like lubricating pads. Timken bearings *roll* the load instead of sliding it, reduce lubricant costs, cut terminal bearing inspection time 90%!

No wonder more than 24,000 "Roller Freight" cars are already in service or on order. And no wonder that 61 railroads and private car owners are sending more and more "Roller Freight" cars into interchange service! "Roller Freight"—the next great step in railroading—will save an estimated $224,000,000 for the railroads when all cars stop sliding on friction bearings and start *rolling* on Timken bearings! To find out how, send for your free copy of "How 'Roller Freight' Can Save America's Railroads $224,000,000 A Year". Write The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".



See the next Timken Televent hour, "The Innocent Years" over NBC-TV, Thursday night, November 21st.

People in the News

AKRON, CANTON & YOUNGSTOWN.—**Ralph J. Hanson,** vice-president, traffic, Akron, Ohio, retired September 30. **George C. Heidish,** traffic manager—sales and service, appointed assistant vice-president, sales and service. Mr. Heidish and **J. J. King,** assistant vice-president, rates and divisions, will report to **Vincent H. Johnson,** vice-president and general manager.

ATLANTIC COAST LINE.—**J. H. Hatcher,** assistant traffic manager, Washington, D.C., transferred to Miami, Fla. **C. D. Williams** appointed assistant general freight agent, Tampa, Fla. **V. C. Dowell** named general agent, Richmond, Va.

W. S. Baker, assistant vice-president, Wilmington, N.C., placed in charge of personnel, labor relations, and relief departments, reporting directly to the president.

ATLANTIC & EAST CAROLINA.—**William C. Radford,** division engineer, **Southern,** Columbia, S.C., appointed general manager, A&EC, New Bern, N.C.

BALTIMORE & OHIO-BALTIMORE & OHIO CHICAGO TERMINAL.—**Joseph R. Rymer,** assistant trainmaster, Chicago, appointed division engineer there.

H. O. McAbee, manager, dining car and commissary departments, B&O, Baltimore, retired September 30.

Paul K. Groninger, general freight agent, Pittsburgh, Pa., promoted to freight traffic manager there, succeeding **Arnold H. Farrar,** who retired September 30. **C. P. Mabie,** assistant general freight agent, Cleveland, named general freight agent, Pittsburgh, succeeding Mr. Groninger. **R. C. Loomis,** assistant general freight agent, Chicago, transferred to Cleveland.

BANGOR & AROOSTOOK.—**Richard W. Sprague,** assistant director of public relations, Houlton, Me., appointed also editor of "Maine Line," bi-monthly employee magazine, succeeding **Kenneth S. Ludden,** assistant director of public relations, Bangor, Me.

A new off-line office opened October 1 at 515 Little building, 80 Boylston street, Boston, Mass., in charge of **George M. Hill,** assistant vice-president—sales.

BOSTON & MAINE.—**Neal J. Holland,** general attorney, Boston, appointed acting general counsel there, succeeding **Richard Jackson,** who resigned to become assistant secretary of the Navy at Washington, D.C.

Miss Phyllis E. Churchill, assistant supervisor of contracts, Boston, appointed supervisor of contracts.

BURLINGTON.—**A. H. Lawson,** general agent, Atlanta, Ga., transferred to Birmingham, Ala., succeeding **J. M. McDermott,** retired. **C. C. Riffe,** general agent, Memphis, Tenn., named to succeed Mr. Lawson, and in turn is replaced by **C. D. Ponder,** commercial agent, Chattanooga, Tenn.

R. G. Johnson, superintendent of terminals, Kansas City, Mo., appointed superintendent, Chicago division, Chicago, to succeed **G. P. Henson,** on leave of absence. Mr. Johnson's successor is **E. D. Harville,** assistant superintendent, Omaha, who in turn is replaced by **W. F. Osborn,** trainmaster, LaCrosse, Wis. **A. R. MacDonald,** trainmaster, St. Joseph, Mo., succeeds Mr. Osborn, and in turn is succeeded by **J. G. Edwards,** assistant trainmaster, Lincoln (Neb.) division, Lincoln.

CANADIAN NATIONAL.—**G. Carleton Connors** named port superintendent, North Sydney, N.S., a new post, supervising marine operations on the Nova Scotia-Newfoundland ferry service.

Walter C. White, division freight agent, St. John, N.B., appointed general freight agent, Atlantic region, at that point, succeeding **D. Bryce Bishop,** retired (Railway Age, Sept. 2, p. 41). **W. H. Collins** succeeds Mr. White.

Nelson H. Chase, chief clerk, communications department, Halifax, N.S., promoted to assistant manager of that department.

J. C. Fielding named assistant to European general manager. **John Matthews** appointed general freight agent for Europe at London, Eng.

Samuel Hibner named superintendent, sleeping, dining and parlor car department, Quebec district, Montreal.

J. F. Roberts, master mechanic, Laurentian division, Quebec, appointed superintendent motive power and car equipment, Quebec district, Quebec, succeeding **H. S. McTeer,** named master mechanic, Levis division, Levis, Que. Mr. McTeer replaces **J. A. Gauthier,** transferred to the Laurentian division, succeeding Mr. Roberts.

J. A. R. Boutin, trainmaster, Laurentian division, Quebec, appointed assistant superintendent, Cochrane division, Chibougamau, Que. **J. H. L. Moisan,** operation trainee, named trainmaster, Cochrane division, Parent, Que., succeeding **C. J. Tremblay,** who replaces Mr. Boutin. Headquarters of **S. Nicholson,** assistant superintendent, Hornepayne division, changed from Hornepayne, Ont., to Nakina, Ont. **C. E. Reynolds,** trainmaster, Cornwall, Ont., transferred to the Allandale division, Gravenhurst, Ont., succeeding **R. C. Field,** transferred to the Hornepayne division at Hornepayne.

CANADIAN PACIFIC.—**J. Fowler,** general locomotive foreman, Winnipeg, Man., promoted to division master mechanic, Portage division, at that point, succeeding **B. B. Woodland,** promoted to assistant engineer of motive power, Montreal (Railway Age, Aug. 12, p. 45).

T. R. Alexander promoted to superintendent, Saskatoon, Sask. Mr. Alexander had been an assistant superintendent since 1943.

CANADIAN PACIFIC EXPRESS.—**H. L. Atto,** general superintendent, Winnipeg, Man., retired September 1. **E. V. Johnson,** superintendent, Winnipeg, appointed general superintendent, Prairie district (Saskatchewan, Manitoba and Ontario from Port Arthur west); and **R. R. Taylor,** superintendent, Vancouver, B.C., named general superintendent, Pacific district (British Columbia and Alberta). Three new express divisions have been set up as follows: Manitoba division, **E. M. Brock,** superintendent; Saskatchewan division, **M. Ritchie,** superintendent; and Alberta-British Columbia division, **W. H. McDonald,** acting superintendent.

CHICAGO & NORTH WESTERN.—**Frank H. Tribbey,** assistant to traffic vice-president, appointed manager of the newly created motor common carrier division, and **F. C. Riend,** general merchandise and trailer agent, named assistant general freight agent. The new division created within the C&NW's traffic department will deal exclusively with the road's expanding piggyback operation for motor common carriers.

DELAWARE & HUDSON.—**F. J. McGuinnes,** assistant manager-stores, Colonie, N.Y., retired October 1. **E. S. Kniskern,** division storekeeper, Colonie, appointed general storekeeper. **F. M. Reardon,** division storekeeper, Oneonta, N.Y., named assistant general storekeeper. Former positions of above abolished.

HOUSE INTERSTATE AND FOREIGN COMMERCE COMMITTEE.—**W. E. Williamson,** mayor of Magnolia, Ark., has been appointed clerk of the committee to succeed **Elton J. Layton,** who is retiring after more than 36 years of continuous service.

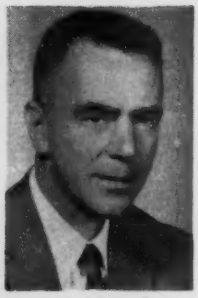
LEHIGH VALLEY.—**W. H. Yeager** appointed general agent, Cincinnati, succeeding **A. E. Montgomery,** retired.

LOUISVILLE & NASHVILLE.—**H. G. White** appointed superintendent of car service, Louisville, Ky., succeeding **Edgar H. Major,** retired. Mr. White, former auditor of disbursements at Nashville, Tenn., with the **Nashville, Chattanooga & St. Louis,** served as assistant auditor of disbursements, L&N, Louisville, after merger of the two roads on August 27.

H. W. Milam, trainmaster, Birmingham Mineral Subdivision, Birmingham, Ala., retired September 30. **R. L. Grimes,** trainmaster, Decatur-Montgomery and Alabama Mineral portions of the Birmingham division, succeeds to Mr. Milam's territory. **G. L. McKenzie,** assistant trainmaster, Louisville, Ky., succeeds Mr. Grimes.

SEATRAIN LINES.—**Henry F. McCarthy,** president and director, resigned October 7.

Paul K. Groninger
B&O



T. R. Alexander
CPR

Frank H. Tribbey
C&NW

H. G. White
L&N

OBITUARY

Edwin R. Hutton, 69, retired assistant general passenger agent, **New York Central,** died October 6 in Little Company of Mary Hospital, Chicago.

FULLY GUARANTEED
FOSTER QUALITY
RELAYING RAILS
Lower installation and maintenance costs—handle more cars better. Foster nationwide warehouses also stock every New Rail Section 12# through 175#, Switch Material and Accessories to meet your specific job requirements.
SEND FOR CATALOGS
RAILS · TRACK EQUIPMENT · PIPE · PILING
L.B. FOSTER CO.
PITTSBURGH 30 · NEW YORK 7 · CHICAGO 4
ATLANTA 8 · HOUSTON 27 · LOS ANGELES 5

RUST-OLEUM Protects Metal...

Saves Even Badly Rusted Surfaces!

The Practical Way To Cut Maintenance Costs — Add Extra Life To Rolling Stock, Bridges, Towers, Tanks, Metal Equipment!

Here's how easy it is to stop rust with RUST-OLEUM! Simply apply RUST-OLEUM by brush, dip, or spray directly over rusted surfaces . . . after removing rust scale and loose particles by wirebrush and sharp scrapers. Costly sandblasting and chemical pre-cleaning are not usually required. Dries to a firm, elastic, durable coating. See how RUST-OLEUM can cut your maintenance costs. Specify RUST-OLEUM for all new construction, maintenance, repair or rebuilding.

New RUST-OLEUM Railroad Catalog
Send for your free copy of this new catalog today—for the facts on how RUST-OLEUM can cut your maintenance costs.

In All Colors, Aluminum and White

RUST-OLEUM CORPORATION
2534 Oakton Street, Evanston, Illinois

RUST-OLEUM STOPS RUST!

Stopping Rust with RUST-OLEUM 769 D.P Red Primer

FOR SALE

RECONDITIONED
RAILROAD CARS FOR INTERPLANT USE
GONDOLAS • BOX • FLAT
ERMAN-HOWELL DIVISION
332 South Michigan Avenue
Chicago 4, Illinois
WEbster 9-0500

LOCOMOTIVES

2 *65-ton Whitcombs.* Mfg. 1944. 0-4-4-0. ICC approved. Exec. Cond. Std. gauge. Location: Columbus. $26,000.00 ea.

2 *30-ton Atlas* with Cummins engines, Westinghouse electrical equip. 0-4-4-0 with side rods. Std. gauge may be altered to narrower gauge down to 36-inch. $22,500.00 ea.

PRESTON W. DUFFY & SON
193 E. Beck Street
Columbus 6, Ohio
Capitol 8-5369

PURCHASING AGENT

Small company Chicago area. Knowledge freight car parts essential. Knowledge steel desirable but not necessary. Responsible for all purchasing. Opportunity to work in other phases of business. Give experience, age, salary requirements. Replies held in confidence. Box 1014, Railway Age, 79 West Monroe Street, Chicago 3, Illinois.

FOR SALE

1500 KW RECTIFIER
WESTINGHOUSE — Mercury Arc. Ignitron 3/60/44,000 AC-15,000V. DC, Automatic Controls.
2—750KW, GB Rotary Converters-HCC-6-600V. DC.
S. M. DAVIS
810 LaSalle St. Louis 4, Missouri

POSITION WANTED

Eastern Transportation sales representative wanted by national paint manufacturer. Paint experience not necessary, but experience in calling on railroads and bus lines is essential. Established business, with salary, expenses, and bonus arrangement. Address Box 847, RAILWAY AGE, 30 Church St., New York 7, N.Y.

BUY U.S. SAVINGS BONDS

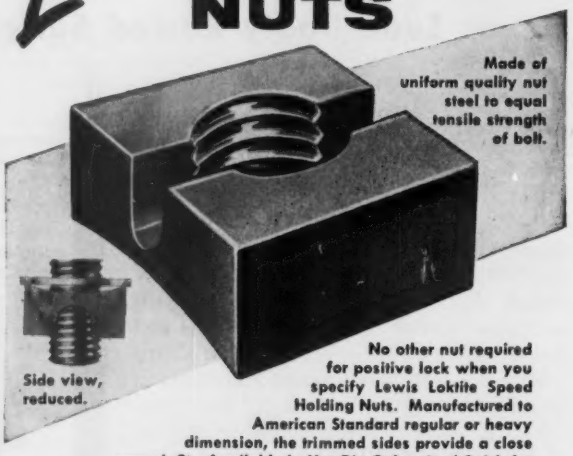
POSITION WANTED

Executive Assistant, General Auditor, Assistant, Accountant — Thirty years experience. Must relocate due to merger. Reply Box 846, RAILWAY AGE, 30 Church Street, New York 7, N.Y.

Adams & Westlake Company	14
Alco Products, Inc.	32
Aluminum Company of America	45
American Hair & Felt Company	18
Association of American Railroads	17
Automatic Electric Sales Corporation	8
Beck & Blatchford, Inc.	12
Bethlehem Steel Company	3
Edison Company, Thomas, Industries of McGraw Company	35
Electro-Motive Division, General Motors	Front Cover
Esso Standard Oil Company	6
Foster Company, L. B.	50
General American Transportation Corporation	33
General Steel Castings	11
Institute of Thread Machiners	30
Johns-Manville	41
Lewis Bolt & Nut Company	52
Mahon Company, R. C.	24
Matisa Equipment Corp.	19
Morrison Railway Supply Company	53
National Aluminate Corporation	Inside Front Cover
National Malleable & Steel Castings Company	28, 29
Philco Corporation	38
Railway Maintenance Corporation	37
Remington Rand Division, Sperry-Rand Corporation	22
Rust-Oleum Corporation	51
Sperry Rail Service Division of Sperry Products, Inc.	39
Standard Car Truck Company	40
Stran-Steel Corporation, Unit of National Steel Corporation	35
Symington-Gould Corporation, The	Inside Back Cover
Timken Roller Bearing Co.	49
Turco Products, Inc.	Back Cover
Union Switch & Signal Division of Westinghouse Air Brake Co.	4
Vapor Heating Corporation	23
Westinghouse Air Brake Company	46

FOR POSITIVE LOCK USE

Lewis LOKTITE NUTS



No other nut required for positive lock when you specify Lewis Loktite Speed Holding Nuts. Manufactured to American Standard regular or heavy dimension, the trimmed sides provide a close wrench fit. Available in Hot-Dip Galvanized finish for Double-Life, greater economy, in black for low original cost. Call, wire or write for samples, prices.

All products are manufactured in the U.S.A. to A.S.T.M. specifications.

Lewis BOLT & NUT COMPANY
504 Malcolm Ave. S. E.
MINNEAPOLIS 14, MINNESOTA

LOOK FOR THIS STAMP OF U QUALITY

STATEMENT required by the Act of August 24, 1912, as amended by the Acts of March 3, 1933, and July 2, 1946 (Title 39, United States Code, Section 233) showing the ownership, management, and circulation of Railway Age, published weekly at Orange, Connecticut for October 14, 1957.

1. The names and addresses of the publisher, editor, managing editor, and business managers are:
Publisher, Robert G. Lewis.
Editor, James G. Lyne.
Executive editor, Joe W. Kizzia.
Managing editor, C. B. Tavenner.
Business manager, Duane C. Salisbury.

2. The owners are: Simmons-Boardman Publishing Corp., 30 Church St., New York 7, N. Y. Stockholders of one percent or more, James G. and Louise Lyne, 30 Church St., New York 7, N. Y., Arthur J. McGinnis, 30 Church St., New York 7, N. Y., Frederick A. and Artimese B. Clark, 30 Church St., New York 7, N. Y., Samuel O. and Carrie E. Dunn, 79 West Monroe St., Chicago 3, Ill. Joseph or Katherine Sanders, 2909 Maple Ave., Dallas 4, Texas, John R. Thompson and Kathe Thompson, 79 West Monroe St., Chicago 3, Ill., Ruth Wheaton Johnson, 1615 Ravenna Blvd., Seattle 5, Wash., William E. Russell as Trustee L/W/T of Ida R. Simmons F/B/O, Mrs. E. S. Fenton, % Russell & Russell, 41 East 42nd St., New York 17, N. Y., J. Streicher & Co., 2 Rector St., New York, N. Y., Partners of J. Streicher & Co. are: Joseph Streicher, Jack L. Streicher, Ethel Streicher, Judson Streicher, all of 2 Rector St., New York, N. Y., Morton & Co., % Marine Midland Trust Co., 120 Broadway, New York 15, N. Y.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only). 14,783.

ROBERT G. LEWIS,
(Signature of publisher)

Sworn to and subscribed before me this 30th day of September, 1957.

EDMUND J. PUYDAK,
[SEAL] (My commission expires March 30, 1959)

we recognized the need

and built it from experience

RAILROAD-MEN in their thinking . . . railroad-men in their doing, Morrison-men are quick to recognize what the railroad industry needs to help it operate and profit.

CAMPCARS by Morrison are the result of constant pulse-taking of a throbbing and vital industry. They fill an important need for supplying economical off-track housing for M/W crews. More important, Morrison's 30 year experience in building equipment for railroads has helped produce a CAMPCAR that's ruggedly built for long, hard use . . . commodiously designed to afford clean, sanitary living space . . . compactly constructed to house, feed and sustain from 2 to 50 men or more, completely independent of utilities or servicing, for a week or longer.

And railroads have found CAMPCAR savings so tremendous that many of the present users have liquidated their original cost in the first year of use.

We'll be happy to send you a list of present CAMPCAR users and our latest fact-packed brocure. Write today!

MORRISON RAILWAY SUPPLY CORP. / 1437 Bailey Avenue, Buffalo 12, N. Y.

Better Find Out the Costs

A lot of people have criticized the so-called "ICC formula" for separating freight and passenger costs, but few of the critics have taken the trouble to show how the job should be done.

The deficiency in constructive criticism of the ICC formula was corrected a couple of weeks ago by testimony offered in the current investigation of the "passenger deficit"— by a group of economic analysts who work under the group name of Aeronautical Research Foundation.

The services of these researchers were arranged for by the AAR, but their findings were completely their own.

The researchers' testimony was presented by John R. Meyer, chairman of the group. While much of his presentation would be of interest only to those with considerable knowledge of statistical methods, the conclusions are simple enough. In general, what the witness did was to show how computations can be made from existing data which will give reasonably dependable cost information on passenger (or freight) service—while avoiding arbitrary allocations of expense which are common to both freight and passenger service.

Analyst Meyer was searching for a figure on "avoidable cost" of passenger service—that is: How much would the railroads be ahead if they should withdraw entirely from the operation of passenger trains? The sum he came up with was not much different from the one the ICC statisticians call the "passenger deficit," on a basis of "full costs."

Mr. Meyer reached a rather persuasive conclusion as to what the "passenger deficit" was in 1955—not, of course, what it would be if the most extravagantly unprofitable passenger services were eliminated; or if market opportunities were more energetically cultivated. Or if train crews were being paid by the hour instead of by the mile.

•

The analytical method these researchers have described could have a far-reaching and favorable effect, if it were generally applied by the ICC and railroads in improving the dependability of their cost information. There is hardly anything the railroads need more acutely than additional detailed cost information to which railroad people themselves will give credence.

Practical railroad operators are rightly suspicious of alleged "costs" which include allocations of common expenses on some arbitrary basis.

They are likewise justifiably critical of so-called "costs" which are nothing but simple averages—such as dividing total car-repair expense by car-miles to get a figure of repair cost per car-mile. Such an average may be far removed from the actual repair expense of any particular series of cars. The use of such averages in deciding whether a particular operation is profitable or not may lead to decisions which do not accord with facts.

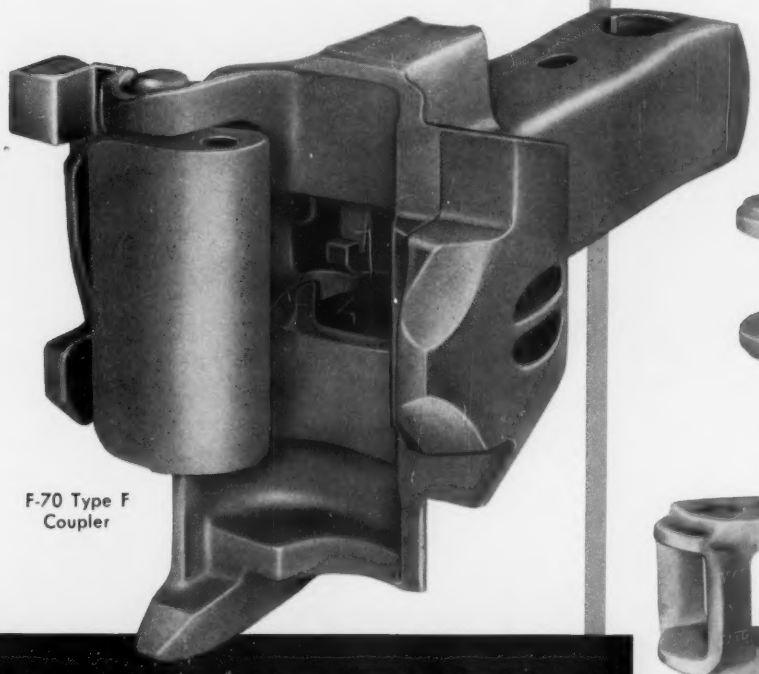
There are not, of course, a great many people on any one railroad who have had occasion to master the techniques for arriving at dependable cost information—but the work of the people who have done and are doing so is mighty important to the future of the railroads.

WHY COST INFORMATION IS NEEDED: The railroads are not essentially different from other large industries which produce many different products—and which have the problem of ascertaining costs, for the purpose of profitable pricing, as well as to check comparative performance. It is no coincidence that, usually, the manufacturing companies which have the best and most systematic cost information are also the most profitable. There is no reason to suppose that the experience of railroads in this field should be any different.

FOR HIGH-SPEED FREIGHT SERVICE... EQUIP YOUR NEW OR REBUILT FREIGHT CARS WITH

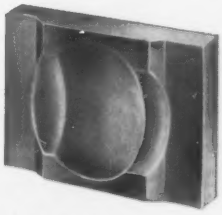
Symington-Gould

TYPE F INTERLOCKING COUPLERS

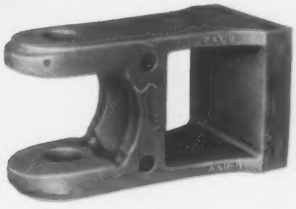


F-70 Type F Coupler

Y-47 Coupler and Yoke Pin



Y-46 Front Follower



Y-37 Yoke for Twin Draft Gear

Y-45 Yoke Standard Pocket

Symington-Gould Type F Interlocking Couplers help reduce free slack, provide threefold anti-creep protection. Easier operating, these couplers provide greatly increased strength and service life. The interlocking feature prevents vertical slipovers, keeps cars in alignment. Safety shelf on F Coupler is designed to support mated coupler in event of pull-out.

THE *Symington-Gould Corporation*

WORKS: DEPEW, NEW YORK

New York • Chicago • St. Louis • Boston • San Francisco • In Canada: ADANAC SUPPLIES, LTD., Montreal, Quebec

For Exterior Car Cleaning... it's TRANSPRAY by TURCO

PHOTOGRAPH COURTESY SOUTHERN PACIFIC RAILROAD

Whatever the condition, whatever the soil, when *exterior cleaning* is involved, you can always rely on the Turco Transpray Line of acid cleaners. A series of *customized* compounds, engineered by Turco chemists to meet the specific needs of railroads in any area, Transpray quickly and economically cleans painted and stainless steel exteriors... leaves them sparkling ... forces admiration from *all* your passengers.

Transpray is easily and completely rinsed from the surface. It affords high safety from corrosion. It can be applied either mechanically or manually and can be allowed to dry on the surface without harmful effects.

Acid exterior cleaning is but one of the functions performed daily on railroads throughout the world by Turco's complete line of compounds. Other complete lines of Turco railroad compounds are vat cleaners, emulsion cleaners, electrical equipment cleaners, steam cleaners, paint strippers, a full line of cleaning equipment and many others. These complete lines, plus on-the-spot Turco technical service, stand as the main reason why, when it comes to *cleaning*, America's leading railroads turn to Turco... *first!*

TURCO PRODUCTS, INC. *Railroad Division*

Chemical Processing Compounds

6135 South Central Avenue, Los Angeles 1, California

Factories: Newark, Chicago, Houston, Los Angeles, London, Rotterdam, Sydney
Mexico City, Hamburg, Paris, Montreal, Naha (Okinawa)

Manufactured in Canada by B. W. Deane & Co., Montreal

Offices in all Principal Cities